

INFANTRY PLATOON DEFENSE (BRADLEY FIGHTING VEHICLE)

Subcourse Number IN 0499

EDITION C

United States Army Infantry School
Fort Benning, Georgia 31905-5593

5 Credit Hours

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SUBCOURSE OVERVIEW

This subcourse is designed to teach the basic information on defensive operations for a mechanized infantry M2 Bradley Fighting Vehicle (BFV) platoon. Contained within this subcourse are instructions on how to issue an oral operation order, conduct a defense by a platoon, conduct a defense by a M2 BFV platoon, consolidate a platoon following enemy contact while in the defense, reorganize a platoon following enemy contact while in the defense, conduct a disengagement by a platoon while under enemy pressure, plan a withdrawal not under enemy pressure, employ an M2 BFV platoon in the aerial role, conduct a point antiarmor ambush by an BFV squad, and supervise employment of smoke. This subcourse reflects the doctrine which was current at the time it was prepared. In your own work situation, always refer to the latest publications.

The words "he", "him", "his", and "men", when used in this publication, represent both the masculine and feminine genders unless otherwise stated.

TERMINAL LEARNING OBJECTIVE

TASKS: This subcourse is designed to teach the necessary information on how to issue an oral operation order, conduct a defense by a platoon, conduct a defense by an M2 BFV platoon, consolidate a platoon following enemy contact while in the defense, reorganize a platoon following enemy contact while in the defense, conduct a disengagement by a platoon while under enemy pressure, plan a withdrawal not under enemy pressure, employ an M2 BFV platoon in the aerial role, conduct a point antiarmor ambush by an M2 BFV squad, and supervise employment of smoke.

CONDITIONS: Given the subcourse material, a combat (training) scenario the student will complete the examination at the end of the course.

STANDARDS: The student will successfully answer 70% of the questions on a multiple-choice based examination for Subcourse IN 0499. The student will identify, prepare and issue an oral platoon defensive operation

order, designate primary, alternate and supplementary fighting positions for key weapons in the defense, conduct a disengagement by a platoon while under enemy pressure, prepare an M2 Bradley platoon defensive position, direct M2 Bradley platoon fires in the defense, employ an M2 Bradley platoon on battle positions, employ an M2 Bradley platoon in the aerial defense role, conduct a defense by an M2 Bradley platoon, organize an antiarmor ambush with an M2 BFV squad, supervise employment of smoke, consolidate and reorganize an M2 Bradley platoon following enemy contact, and plan a withdrawal not under enemy pressure and under enemy pressure.

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LESSON 1

PLAN, PREPARE AND CONDUCT A PLATOON DEFENSE USING THE M2 BRADLEY FIGHTING VEHICLE

Soldier's Manual Tasks	071-326-4004	Issue an Oral Operation Order.
	071-430-0006	Conduct a Defense by a Platoon.
	071-430-0017	Conduct a Defense by an M2 BFV Platoon.
	071-430-0007	Consolidate a Platoon Following Enemy Contact While in the Defense.
	071-430-0008	Reorganize a Platoon Following Enemy Contact While in the Defense.

OVERVIEW

TASK DESCRIPTION: Issue an oral operation order, conduct a defense by a platoon, conduct a defense by an M2 BFV Platoon and consolidate and reorganize a platoon following enemy contact while in the defense.

LEARNING OBJECTIVE:

TASKS: Identify how to issue an oral operation order, conduct a defense by a platoon, conduct a defense by an M2 BFV platoon, consolidate a platoon following enemy contact while in the defense, and reorganize a platoon following enemy contact while in the defense.

CONDITIONS: Given the subcourse material for this lesson, a training scenario, the student will complete the practice exercise at the end of the lesson.

STANDARDS: The student will demonstrate his comprehension and knowledge by identifying how to issue an oral operation order, conduct a defense by a platoon, conduct a defense by an M2 BFV platoon, consolidate a platoon following enemy contact while in the defense, and reorganize a platoon following enemy contact while in the defense.

REFERENCES: The material in this lesson was derived from the following publications.

INTRODUCTION

The purpose of defensive operations is to repel an enemy attack and destroy the attacker. Defensive operations may also be undertaken to hold critical terrain, to gain time, or to wear down the enemy. Your platoon defends as part of your company or company team and completes tasks assigned to it by the company or company team commander.

The defense may involve fast, frequent movement between battle positions and during counterattacks. Platoons and squads must be able to respond to short-notice changes in mission and must be able to fight immediately from a new battle position. Thus, your platoon must develop and practice SOPs, master applicable drills, and learn to exploit the mobility and firepower of the fighting vehicle.

Platoons defend to hold terrain and destroy the enemy. Their defensive tasks include:

- Destroying enemy BMPs, BTRs, and other lightly armored vehicles with the 25-mm gun and with Dragons light antitank weapons, (LAWs), and grenade launchers.
- Destroying enemy tanks with the BFV-mounted, tube-launched, optically-tracked, wire-guided (TOW) missile and with Dragons and LAWs.
- Suppressing enemy antitank fires with the 25-mm gun, grenade launchers, 7.62-mm coaxial machine gun, squad automatic weapons (SAWs), and rifles.
- Repelling dismounted enemy attacks with the BFV and dismounted infantry.
- Locating the enemy and providing security by manning observation posts and conducting patrols and ambushes.
- Building obstacles to slow, stop, or canalize the enemy and providing security for obstacles.
- Conducting platoon-size counterattacks, or as part of larger force, to regain a portion of their position that has been overrun.

As stated, the immediate purpose of any defense is to defeat the attack. Other purposes, while important, are not the primary focus of the defense.

Defense is used to gain time for reinforcements to arrive or to economize forces in one sector while concentrating forces for attack in another. In either case, a defense or a delay may achieve these purposes.

In other cases, portions of a force may be required to retain key or decisive terrain or essential strategic, operational, or tactical objectives. Even in offensive operations, air assault, airborne, or amphibious forces may need to defend deep objectives until a larger force can link up with them. Whatever its larger purpose, the immediate challenge of any defensive operations is to recapture the initiative and

thus create the opportunity to shift to the offensive. All activities of the defense must contribute to that aim.

PART A - PREPARE AND ISSUE AN ORAL OPERATION ORDER (OPORD)

1. General.

You are responsible for keeping your men informed through your squad leaders. A primary way of doing so is through the platoon order. Your platoon order is based on the operation order given by the company commander. It must be altered to delete information that does not concern the platoon and to add sufficient detail to allow proper planning by your squad leaders.

As part of your troop leading procedure you must develop a clear and concise oral platoon order and issue it to your squad leaders. In issuing the order, you must make sure the squad leaders understand their mission and the specific coordinating instructions that apply. The order must contain the following items, properly placed in the five-paragraph format:

- The mission of the company.
- The mission of the platoon.
- The mission of each squad, to include specific areas of responsibility and provisions for security.
- Locations for machine guns and antitank weapons.
- The order and route march to the defensive area.
- Critical signal instructions.
- Locations of platoon and company command posts (CPs).

2. Operation Order.

The company commander issues an OPORD to his subordinate leaders in order to explain how the mission is to be conducted. The OPORD is issued using a five-paragraph format. This format helps the commander organize his thoughts and insures that nothing is overlooked. It also helps his subordinate leaders understand and follow the order.

When your platoon's mission is to defend, the company commander's OPORD explains his plan for the defense. From the order, you learn:

- The most likely and most dangerous enemy avenue of approach and expected enemy course of action.
- The platoon's mission.
- The company team and battalion task force commander's concept, or commander's intent, of how the defense will be fought.
- The position of the platoon in the company or company team defense.

- The platoon's sector of fire or engagement area.
- The fire support that is available.
- The on-order missions for the platoon.
- The evacuation or destruction procedures for damaged vehicles.
- The evacuation procedures for friendly casualties.
- The place where prisoners of war are to be taken.
- The availability of ammunition, mines, barrier materials and other supplies.
- The special signals that are to be used.

On receipt of a company operation order, you begin your troop leading procedures. You begin with an analysis of the mission, enemy, terrain, troops, and time available (METT-T).

Often you will have to issue simple fragmentary orders and rely heavily on standing operating procedures (SOPs) because the tactical situation requires immediate action. During occupation of a battle position, the platoon and squads should use the applicable drills to reduce time and possible confusion. Regardless of the time available, you should do as many of the troop leading procedures as possible.

When you have completed your analysis, made your reconnaissance, and developed your plan, you then complete your order. The order should follow the standard five-paragraph operation order format and be issued orally. Where possible, SOPs should be referred to in the order. This helps to shorten the order. The order must explain what is to be done, how, when, and by whom. The squad leaders then give orders to their squads.

The OPORD must contain the information and instructions needed to complete a specific mission. The amount of detail included in the order depends on the information received and the time available to prepare the order (and prepare for the operation).

The OPORD must be given in easily understood words. For example, it may be preferable to say, "Here's how we are going to get the job done," rather than "Execution."

Following is an example of how the OPORD should be organized to ensure that the squad members are told everything they need to know to perform the mission. The purpose of this format is to help prepare the order. It is to be used as a checklist or guide.

SQUAD OPERATION ORDER

TASK ORGANIZATION: Indicates the squad tactical organization for combat.

1. SITUATION (paragraph 1). This paragraph provides an overview of the general situation.

a. Enemy Forces (subparagraph 1a):

(1) Composition, disposition, location, movement, morale, strength, status of supply, and so forth.

(2) Types of vehicles, weapons, special training, nuclear, biological and chemical (NBC), and so forth.

(3) Most probable course of action. Attack, defend, or delay.

b. Friendly Forces (subparagraph 1b): This subparagraph contains the word-for-word mission statements of other units, listed in the following sequence:

(1) Higher headquarters--The platoon mission.

(2) Adjacent units--Left, right, front and rear unit missions, in that order.

(3) Support or reinforcing units--For example, the mission of an engineer unit or ground surveillance radar (GSR) team.

c. Attachments and Detachments: List units attached to or detached from the platoon and squad and note the time that each change occurred.

2. MISSION (Paragraph 2). The mission is a clear, concise statement of the issuing unit's purpose and task(s) to be accomplished. The mission statement is derived from an analysis of both the company and platoon missions; stated, implied, and mission-essential tasks; limitation and constraints; the WHO, WHAT, WHEN, WHERE, and WHY of the operation. All of the mission-essential tasks to be accomplished are normally addressed in chronological sequence in the mission statement. These are tasks that the commander has determined to be critical to the success of the operation. The mission is always stated in full. It must stand alone without reference to any other documents except a map. In addressing the "WHERE" of the operation, the mission statement always lists the terrain feature (for example, "HILL 302" or "Road Junction") and grid coordinates. The terms "OBJECTIVE" and "Battle Position" may be related to terrain features or to grid coordinates.

3. EXECUTION (paragraph 3). This paragraph contains the "How to" information needed for mission accomplishment. It consists of three elements: Concept of the operation, subordinate unit subparagraphs, and coordinating instructions.

a. Concept of the Operation (subparagraph 3a):

(1) Scheme of maneuver. This is the leader's mental picture of the execution of an operation order from start to finish. It provides the soldiers with their leader's intent so that the mission may be done in the time available and in the absence of further instructions. The scheme of maneuver describes the use of maneuver elements (formation, order of march, route, actions on the objective and so on). It states all the objectives, sectors, or battle positions for the maneuver elements. Designation of a reserve is also included in this part of the concept for any type of mission.

(2) Fires (plan fire support). This complements and supports the scheme of maneuver. It includes the priority of fire, priority targets, final protective fires (FPFs), preparatory fires (to include the start time and the duration of each of these fires). It also includes any special fires such as nuclear, chemical, smoke operations, or close air support fires. Only indirect fires are addressed in this part of the concept.

(3) Obstacles, mines, and fortifications. These MAY be included in the concept for offensive operations; they MUST be included for defensive operations. This part includes a brief statement of the leader's intent or the basic thrust of the maneuver. It also includes the order for obstacle work. The types of operations (mobility, countermobility, and survivability) may also be stated.

(4) Intelligence and electronic warfare. These may be addressed in the concept. A brief discussion of intelligence collection and electronic warfare priorities may be added. The squad leader may direct any attached surveillance assets to rank their efforts that are directly related to the success of the operation.

b. Subordinate Unit Instructions (subparagraph 3b and subsequent lettered subparagraphs): These give the specific task to be done by each subordinate or subordinate element of the unit. Instructions given in the concept of operation may be repeated. All subordinate units must be listed. If no further instructions are to be issued, state "None."

c. Coordinating Instructions (last subparagraph of paragraph 3): These contain the details of coordination and control which apply to two or more elements of the squad (except for Signal, which is addressed in paragraph 5b). Where there are no coordinating instructions, the word "None" appears. Typical items included in coordinating instructions are--

- (1) Reports to be made other than SOP.
- (2) NBC troop safety instructions and operational exposure guidance (OEG).
- (3) Mission-oriented protective posture (MOPP) levels (if not the same as SOP).
- (4) Air defense standards.
- (5) Consolidation and reorganization instructions.
- (6) The priority intelligence requirements (PIR), if not stated in an intelligence annex.
- (7) Coordination of passage of lines.
- (8) Effective date-time group (DTG) of attachments and detachments (if not listed in TASK ORG or paragraph 1c).
- (9) Effective DTG or the conditions in which the operation plan (OPLAN) goes into effect when the order or plan does not go into effect when it is received.
- (10) Reference to annexes that are included in the OPORD/OPLAN but that are not mentioned in the body of the OPORD/OPLAN.
- (11) Actions on the objective.

4. SERVICE SUPPORT (paragraph 4). This paragraph contains combat service support (CSS) instructions and information relating to the operation. There is no doctrinal format for paragraph 4; however, the administrative/logistics order format is recommended as follows: (NOTE: Reference may be made to the unit SOP, if appropriate; items not required are omitted.)

- a. Materiel and Service. Status of all classes of supply, transportation, services, and maintenance.
- b. Medical Evacuation and Hospitalization.
- c. Personnel. Unit strengths, replacements, maintenance of morale, discipline, law and order, and headquarters management.
- d. Civil-Military Cooperation. Limitations or restrictions concerning the local area and the use of PSYOPs.
- e. Miscellaneous. Prisoner of war (EPW) procedures.
- f. Combat Service Support Facilities. The locations and proposed locations of CSS facilities (combat or field trains) may be given; this may not be needed if they are shown on an overlay.

5. COMMAND and SIGNAL (Paragraph 5). This paragraph contains instructions and information that relates to command and to the functions of communications - electronics (CE). Two subparagraphs entitled "command" and "signal", in that order, will be included, as follows:

- a. Command (subparagraph 5a). This includes at least, the initial location of the commander (to simplify messenger operations). It may give the command post locations (this is required if the CP locations are not shown on an overlay) and it may give the CP axis of displacement. The chain of command may be noted if it differs from the SOP.
- b. Signal (subparagraph 5b). This lists the signal operating instructions (SOI) index by specific number in effect for the operation. It also lists any changes scheduled during the operation. It may also list alternate or emergency signals (pyrotechnics) and any signal restrictions such as "radio listening silence." Detailed signal instructions normally are included in a CE annex.

If there is time after issuance of the order, the soldiers may be asked about the order to ensure that they understand it.

2. Summary

This concludes the discussion on preparing and issuing an oral OPORD. During this portion of the subcourse we discussed your responsibility to issue the order, the format, and elements. We also discussed the importance of developing a clear and concise oral OPORD order that covers the situation, mission, execution, service support, and command and signal instructions. Specific guidance of what each of these elements must contain was discussed. We will now move to the next part which is designating primary, alternate, and supplementary positions for key weapons in the defense.

PART B - CONDUCT A DEFENSE BY A PLATOON

1. General.

As a platoon leader, you must prepare your platoon to defend as part of a larger force. Once you have been assigned your platoon's sector of responsibility, you must designate primary, alternate, and

supplementary positions for your antiarmor weapons and squad automatic weapons (SAWs). You and your subordinate leaders must ensure that the positions:

- Cover the most likely armor avenues of approach into the platoon area with medium antitank weapons (MAWs), and heavy antitank weapons (HAWs), from the primary positions.
- Cover the most likely dismounted avenues of approach into the platoon area with M249 SAWs, from the primary positions, with emphasis on protection for the antiarmor positions.
- Provide coverage of the same sectors of fire from alternate positions.
- Provide coverage of armor and dismounted avenues of approach into the platoon area, from supplementary positions, that cannot be covered from the primary or alternate positions. This coverage includes approaches into the flanks or rear of the platoon area.
- Take maximum advantage of all available natural cover and concealment and weapons' capabilities.

2. Key Weapons Locations.

You normally select the location for your SAWs, Dragons, and any attached crew-served weapons. The success of the platoon's mission depends greatly on the proper positioning of those weapons to obtain their maximum sustained firepower. You must make use of all available cover and concealment to provide those weapons with maximum protection from enemy observation and fire. The enemy will concentrate his efforts on finding and destroying crew-served weapons because of their tremendous volume of destructive firepower. Primary, alternate, and supplementary positions which are described below, must be selected for your entire platoon, but positions for your SAWs and antiarmor weapons are most critical ([Figure 1-1](#)).



Figure 1-1. SAW and Antiarmor Weapons Positions.

Primary Position. This is the position within the platoon sector from which the crew-served weapon can best perform its mission ([Figure 1-2](#)).

Alternate Position. An alternate position is a position to be occupied when the primary position can no longer be manned and from which the same sector of fire can be covered. ([Figure 1-2](#)).

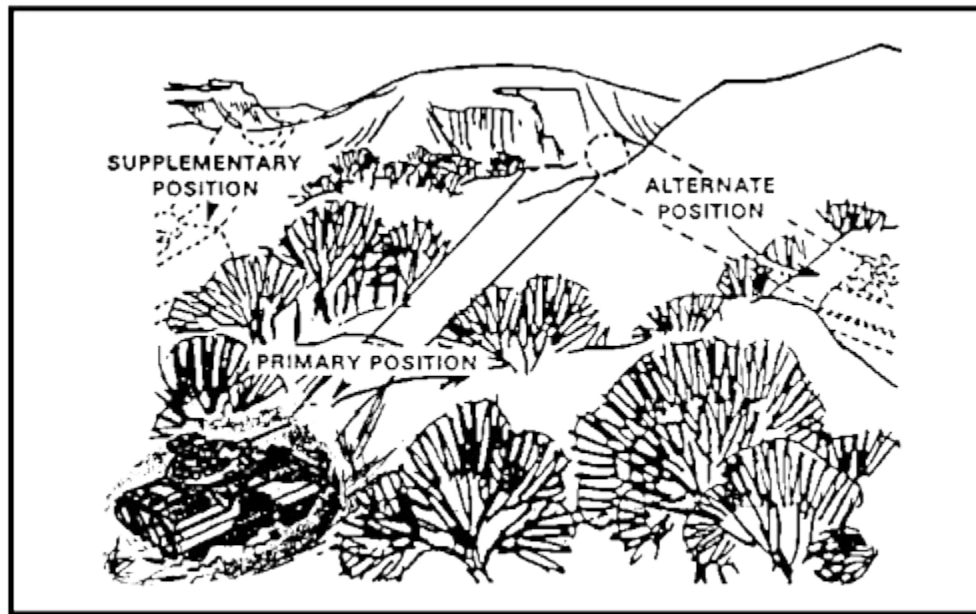


Figure 1-2. Primary, Alternate and Supplementary Positions.

Supplementary Position. This is a position that provides the best location for the accomplishment of a task that cannot be accomplished from the primary or alternate positions, such as providing mutual support to adjacent platoons or defending against an attack from a different direction ([Figure 1-2](#)).

Position your key weapons where they have both cover and concealment, and good fields of fire. Strive to put them where their fires will be overlapping, integrated, and mutually supporting. Position them so that their fire will be heavier on the avenues of approach that the enemy will most likely use. The weapons placed on the flanks of your position must be tied in with the adjacent unit fires to prevent gaps ([Figure 1-3](#)).

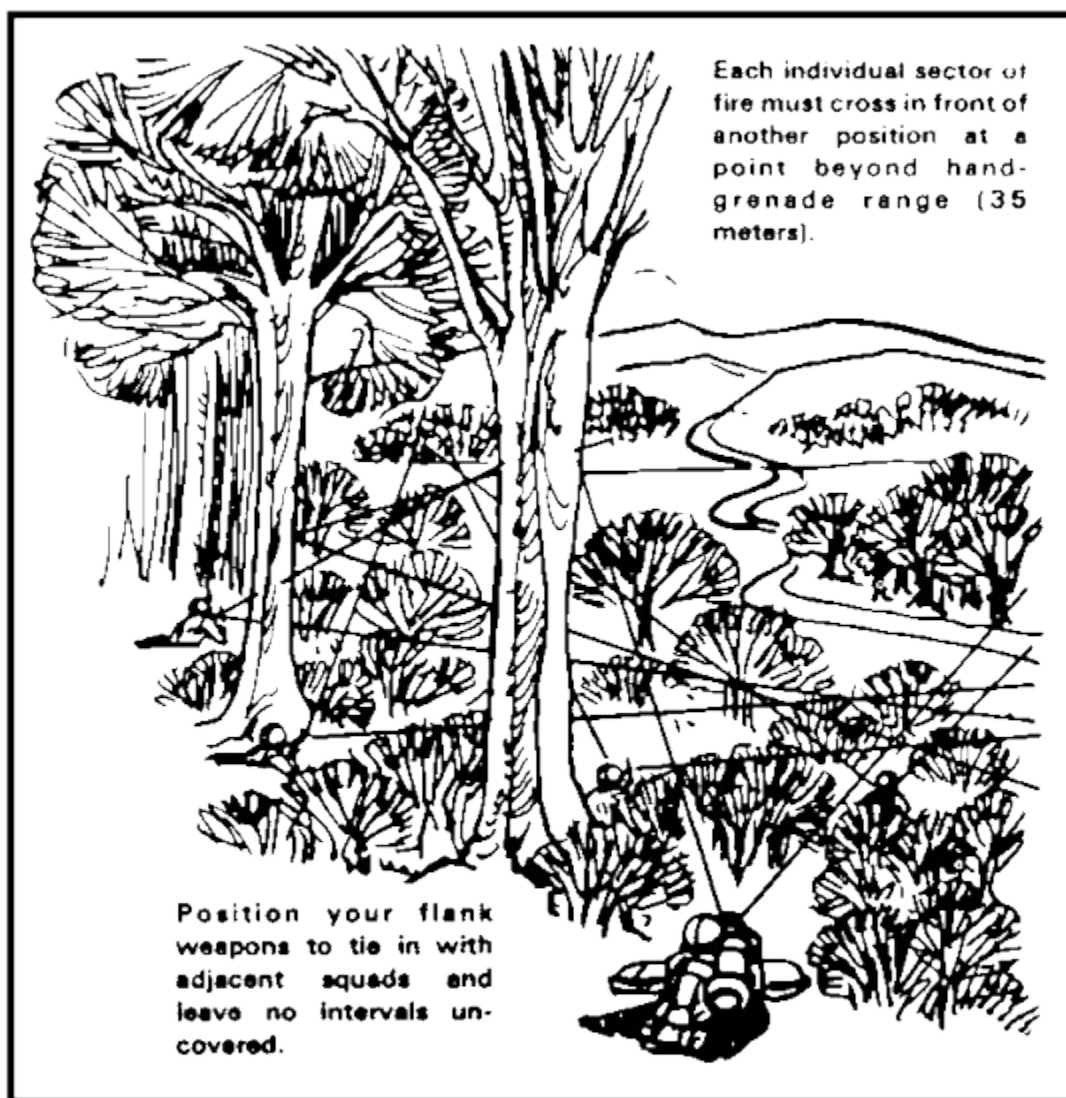


Figure 1-3. Positioning Key Weapons.

Cover. Even when natural cover is available, it usually must be complemented by properly prepared positions. As cover is sometimes sparse, you must be skillful in selecting positions so that all natural cover is used to the maximum extent. When no natural cover exists, positions that are well prepared will protect your men and weapons from enemy fire.

Concealment. The enemy's greatest effort will be toward locating the weapons that hold up his attack. Therefore, clever use of terrain and camouflage is mandatory to deceive the enemy. The best foliage for concealment is alive and natural. Even at night, dead foliage can be detected by electronic sensors.

3. Squad Automatic Weapons.

SAWs are the platoon's key weapons for defense against a dismounted infantry assault and for suppressing unprotected enemy direct fire weapons. Position your SAWs laterally across the front so you can have overlapping, mutually supporting bands of fire and, where the terrain allows, final protective fires (FPF). SAW fire is most effective when it hits the long axis of the enemy assault

formation with the long axis of its beaten zone. When you can, position SAWs in pairs to fire final protective lines (FPL) parallel to one another. Each SAW should be assigned:

- A primary and a secondary sector of fire.
- An FPL or a principal direction of fire (PDF).
- At least one alternate position.
- Supplementary positions that give depth to the defense, provide mutual support to adjacent platoons, and/or meet an attack from a different direction ([Figure 1-4](#)).

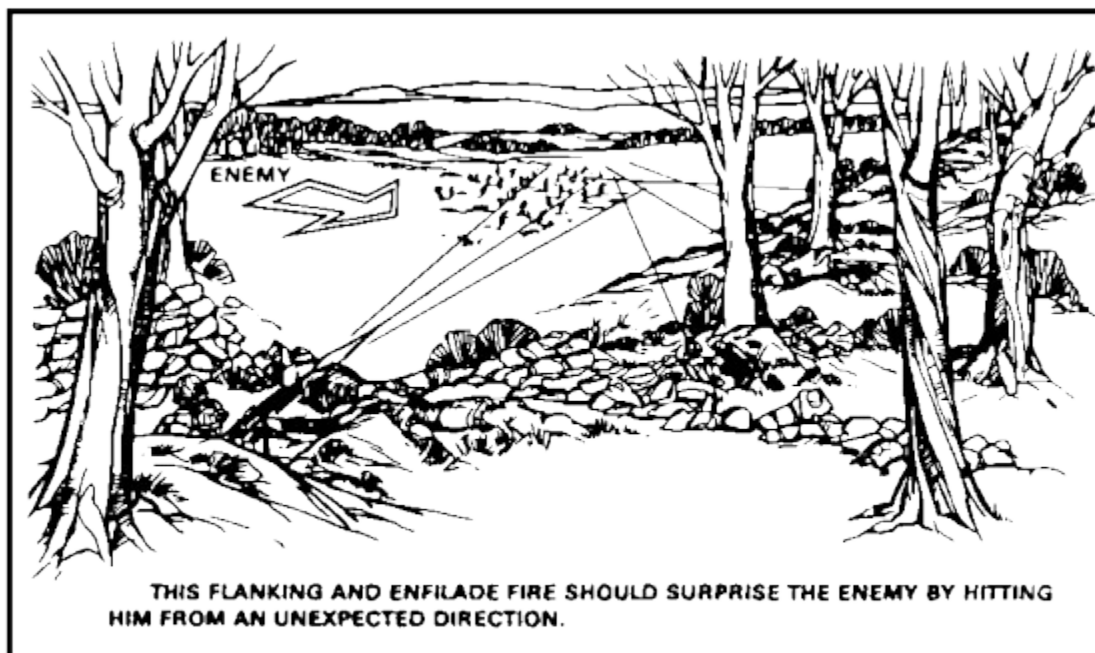


Figure 1-4. Supplementary Positions.

4. Dragons.

Medium antitank weapons are key to the platoon's defense against a tank threat. You should consider the following when employing these weapons:

- Dispose them laterally and in depth to cover a designated armor kill zone. That keeps them from being hit by enemy fire directed at a single point or area.
- Position them to deliver surprise fire. Do so by using the terrain to get maximum use of cover, concealment, and fields of fire to hit the enemy from an unexpected direction (flank or rear).
- Keep central control of them. Enemy fire may cause antiarmor weapons to move to alternate positions or to supplementary positions to meet an attack from another direction. Coordinate their fire to provide a timely massing of fire at the critical point. When Dragon positions are selected, consider that:
 - The missile must be at least 33 centimeters (13 inches) above the ground.

- Obstacles that could detonate the missile, snag its fins or wire, or interfere with its guidance must be cleared. DO NOT FIRE ACROSS POWER LINES.
- The cover and concealment hiding one of these weapons must also hide its launch signature from the front. A rise in the ground that covers and conceals both the weapon and its signature is best.
- Minimum range for the Dragon is 65 meters.
- Position the Dragon so targets will not move behind obstacles before the missile strikes. This is important because, when a vehicle is engaged from the flank, it may move a few hundred meters before the missile strikes it. If you can see no obstacles in your field of view through the sight, then it is clear to launch a missile within that area to a target moving at right angles to your line of sight ([Figure 1-5](#)).

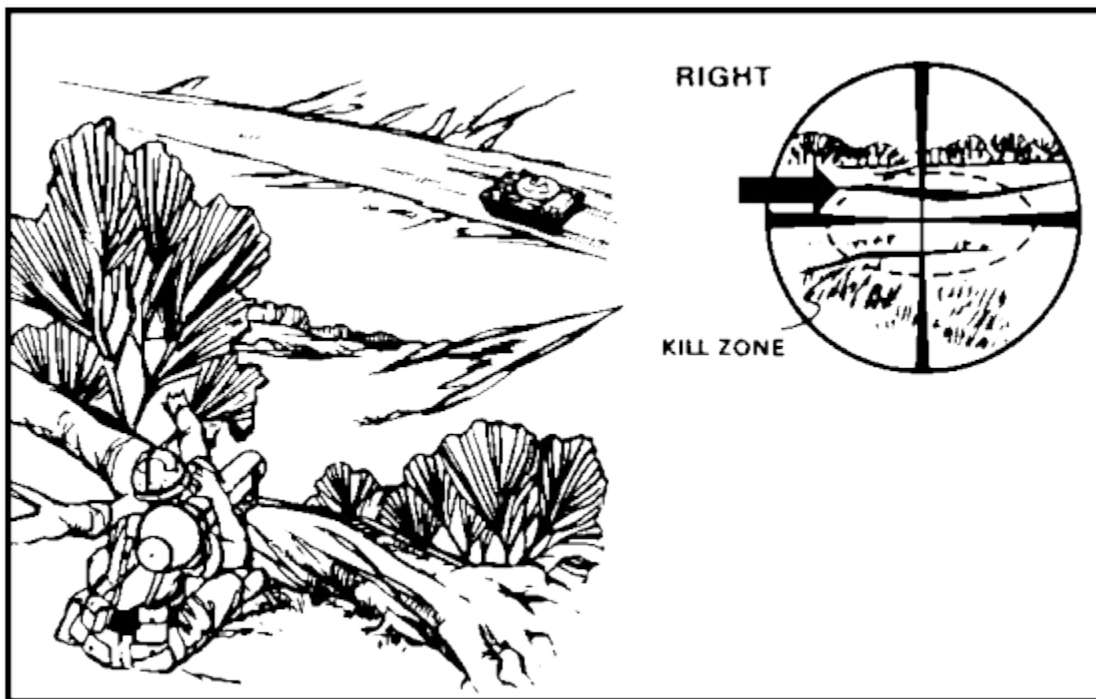


Figure 1-5. Dragon Positions.

5. Summary

This concludes the discussion on designating positions for your platoon's key weapons. We discussed the importance of selecting primary, alternate and supplementary positions for your antiarmor weapons and SAWs, having good cover and concealment, FPLs and PDFs for SAWs and positions for Dragons. We will now move to preparing defensive positions for an M2 Bradley platoon.

PART C - CONDUCT A DEFENSE BY AN M2 BFV PLATOON

1. General.

You and your squad leaders must closely supervise the preparation of defensive positions. You must use cover and concealment, and position key weapons to cover all avenues of approach into the platoon sector.

2. Positioning the M2 Bradley.

The firepower and long-range accuracy of the 25-mm automatic gun and TOW are among the platoon's greatest assets. Therefore, you first consider where to position the BFVs, and then build the platoon defense around them.

Position the BFVs where they can provide:

- Cover, especially to the front.
- Concealment from ground and air observation.
- Good fields of fire into the most likely avenues of enemy approach.
- Mutual support between positions.
- Covered routes of withdrawal.

Employ the BFV's in hull-down, turret-down, or hide positions. Since the BFV is large, cover is often more important than camouflage. There are three main ways to conceal the vehicle: turret-down position, hull-down position, and hide position.

Turret-Down Position. In this position most of the BFV is hidden from enemy ground observation by the terrain to the vehicle's front. Only the top of the turret is exposed so that the Bradley commander and gunner can observe the battlefield. The BFV must be moved from a turret-down position before its weapons can be used effectively. ([Figure 1-6](#)).

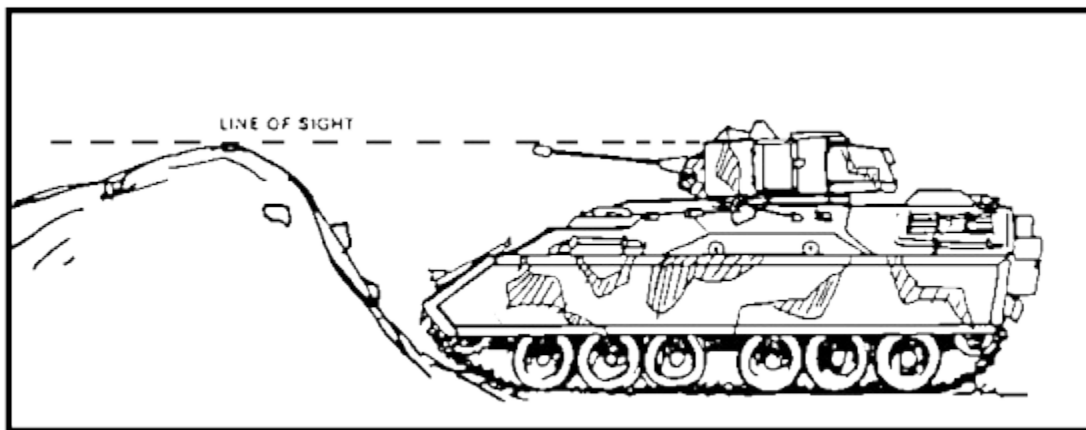


Figure 1-6. Turret-Down Position.

Hull-Down Position. The most common position, the hull-down position, uses the terrain to protect the hull. This type of position allows the Bradley commander and gunner to observe the battlefield and use the turret weapons. ([Figure 1-7](#)).

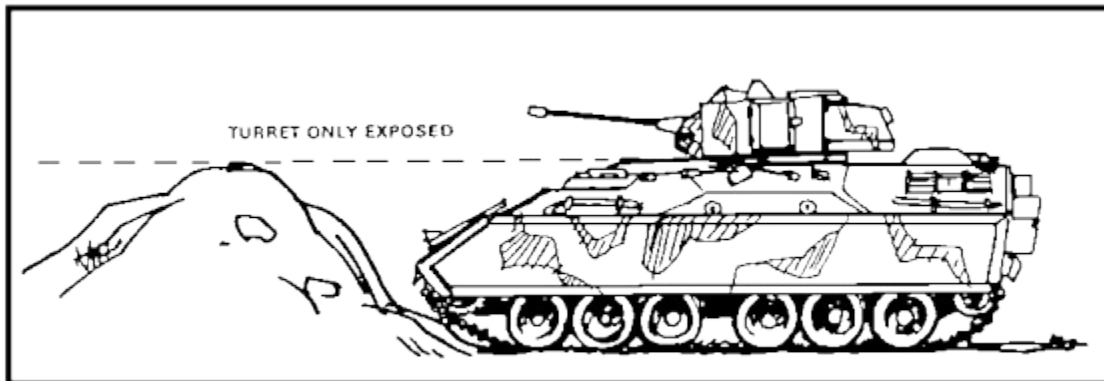


Figure 1-7. Hull - Down Position.

Hull-down positions are often found behind undulations, ridges, slopes, road and railroad embankments, and walls. The Bradley commander may choose to back into a hull-down position. This allows for rapid movement out of the position.

Hide Position. This type of position is used when likely firing positions have little or no cover and concealment. The vehicles are placed to the rear of their designated firing positions in a woodline, behind buildings or in a depression. ([Figure 1-8](#)).

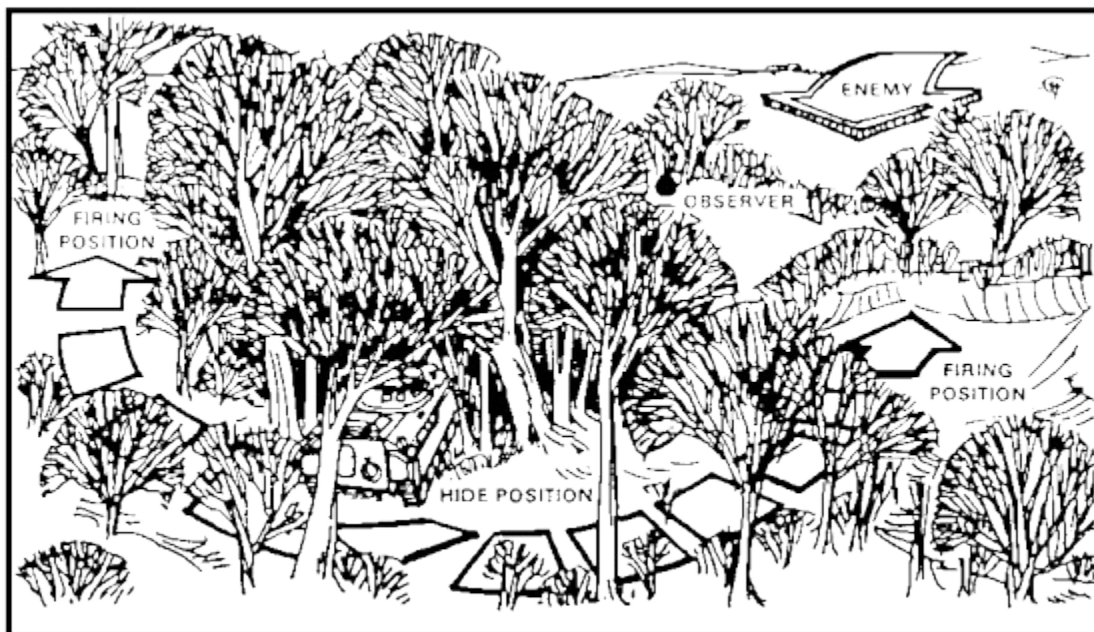


Figure 1-8. Hide Position.

When hide positions are used, the rifle teams should be forward to observe likely engagement areas. They should have a signal to alert the fighting vehicle crews to likely targets and a signal to call the vehicles forward at the appropriate time. These signals can be arm-and-hand, wire, or radio.

No matter what type of firing position is used, the vehicles should have more than one position. Once the BFV engages the enemy, it will attract return fire. By having other firing positions, a BFV can destroy a target, back down into cover, and move to another position. While this is being done, the other BFVs and the dismount element can be firing to divert the enemy's attention.

2. Distance Between Dismount Teams and Squads.

The distance between dismount teams will be determined by the mission, enemy, terrain and weather, and troops and time available.

You can increase distances between squads by positioning each squad with its dismount team deployed and collocated with its fighting vehicle team ([Figure 1-9](#)). Still, each squad should be within mutual supporting range of at least one other squad.

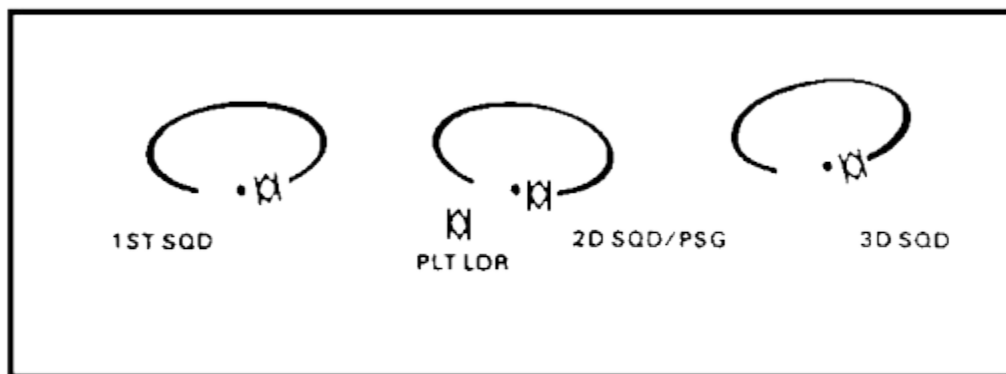


Figure 1-9. Dismount Teams and Fighting Vehicle Teams Under Squad Control.

When the dismount element and fighting vehicle element are separated, you must position the two elements to support each other. The maximum front of a platoon dismount element, separated from the fighting vehicle element, can be assigned under ideal conditions--good terrain, full strength, good fields of fire, etc, is shown in [Figure 1-10](#).

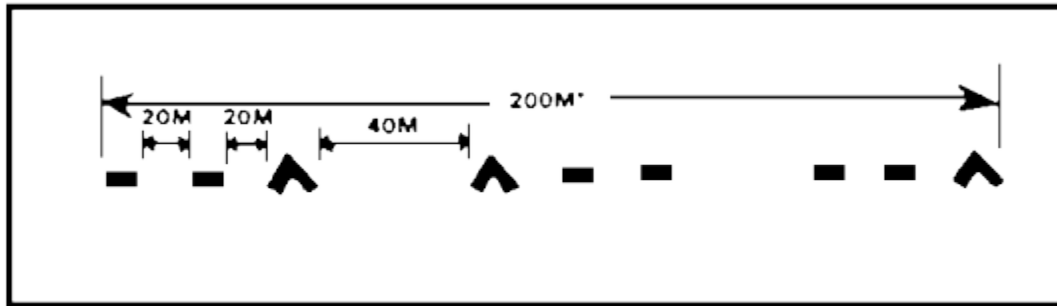


Figure 1-10. Platoon Dismount Element.

Where possible, have the dismount element's fires reinforce and protect the fighting vehicle element. Dismounted infantry should not allow enemy observation much beyond effective small arms/LAW range (about 200 meters). Plan artillery and mortar fire with first priority going to support the dismount element.

When preparing the dismount element position, you must explain to the dismount team leaders how the fighting vehicle teams are to be used. Then assign each dismount team leader a sector and tell him where to position his SAWs and Dragon, and assign sectors of fire for each. Ensure that key weapons are mutually supporting and there are no gaps in the element's sector. Overlapping sectors of observation and fire between weapons, fighting positions, and teams provide mutual support within the element's sector. This fire must be sufficient to keep the enemy from penetrating the position or isolating any part of the dismount element.

As discussed earlier, make use of all available cover and concealment to provide maximum protection from enemy observation and fire. Select primary, alternate, and supplementary positions for the entire platoon, but the SAWs and antiarmor weapons are most critical. As you recall, the platoon positions you must designate are:

- Primary Position. This is the position within your platoon's sector from which the crew-served weapon can best perform its mission.
- Alternate Position. This position is to be occupied when the primary position can no longer be manned and a location from which the primary position's sector of fire can be covered.
- Supplementary Position. This position provides the best location for the accomplishment of a task that cannot be accomplished from the primary or alternate positions, such as providing mutual support to an adjacent platoon or defending against an attack from a different direction.

3. Squad Automatic Weapons and Dragons.

Position your dismount element's key weapons as outlined in [Part B](#) of this lesson.

4. Obstacles.

Enemy approaches into the position should be covered with mines. Use Claymores and other antipersonnel mines to cover any deadspace that cannot be hit with grenade launchers and to supplement the dismount team's fire.

Use antitank mines for close-in protection against mounted assaults. It is best to place antitank mines on likely tank routes where they can be covered by LAW fire. At least one mine should be emplaced for each two-man position; more can be used, depending on the vulnerability of the dismount team to armored attack. You should conceal mines so that they will not be detected. They must also be recorded on DA Form 1355-1-R, Hasty Protective Minefield Record (1 Jun 75).

5. Summary.

This concludes the discussions on preparing a defensive position for an M2 Bradley platoon. We discussed positioning the BFV and then building your defense around them; turret-down, hull-down, and hide positions; positioning the dismount and fighting vehicle teams; selecting primary, alternate and supplementary positions; and use of mines. Next we will cover the employment of the Bradley on battle positions, and conduct of the defense by an M2 Bradley platoon.

6. Employment of the M2 Bradley on Battle Positions.

When your M2 Bradley platoon is operating as part of a company/company team conducting a defensive operation, the company defense OPORD will provide you:

- The commander's concept of how the defense will be fought.
- How the platoon is to deploy and its role in the company/company team defense.
- The platoon sector of fire or engagement area.
- The fighting vehicle element's position and the dismount element's position, if applicable.
- Under what conditions you move and where.

You must then position fighting vehicle teams and the dismount teams to make the best use of the platoon's total combat power; and establish and maintain control of the platoon. You also must assign sectors of fire for the entire platoon and each element, squad, and team, as appropriate.

7. Methods of Employment.

There are three methods of employing M2 platoons in defensive operations:

- Fighting vehicle teams and dismount teams on the same position.
- Fighting vehicle element and dismount element on separate positions.
- Mounted on a single position.

Teams on the Same Position. Your platoon defends with the fighting vehicle teams and the dismount teams on the same battle position when possible, because this method takes maximum advantage of the platoon's defensive capability. You can defend against both mounted and dismounted attacks yet still

move rapidly to another battle position or conduct a counter attack. Within the battle position, the fighting vehicle teams may be positioned with, forward of, on a flank of, or behind the dismount teams.

Fighting Vehicle Teams with Dismount Teams. You direct the fighting vehicle teams to remain with the dismount teams when the terrain provides good observation, fields of fire, cover, and concealment for both teams ([Figure 1-11](#)). This is usually the preferred method because it simplifies control, insures mutual support, and facilitates remounting of the M2s by the dismount teams.

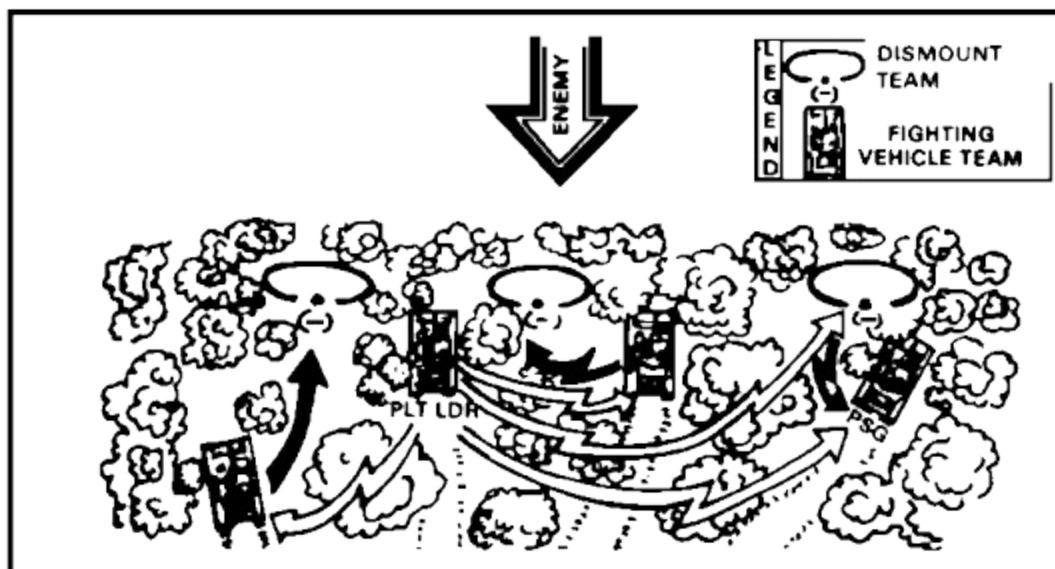


Figure 1-11. Fighting Vehicle Teams with Dismount Teams.

You assign each squad a primary position and sector of fire. Within the sector of fire, assign target reference points (TRPs) to control the massing and shifting of fire. You may also assign alternate positions and sectors of fire. Designate which squads will man observation posts (OP) and give a general position for each OP. Supervise the positioning of each M2, insuring that it ties in with the other M2s according to your concept of the defense. Then, insure that each squad leader positions his dismount team to complement the M2s fires, provide security, and (to the extent possible) orient on dismounted avenues of approach. When using this technique, you control the platoon through your squad leaders, who retain control of both the dismount team and the fighting vehicle team.

Fighting Vehicle Element Forward on Same Battle Position. You initially employ the fighting vehicle element forward of the dismount element when it is necessary to gain better observation and fields of fire and thus, take advantage of the M2 weapons ([Figure 1-12](#)). You position the dismount element to the rear to avoid unnecessary exposure to enemy fire directed at the M2s. Direct the dismount elements to prepare the fighting positions and obstacles. Assign each fighting vehicle team a primary forward position and at least one alternate position and sector of fire. Also, assign positions to be occupied after displacement. Designate dismount team positions and sectors of fire that complement the fighting vehicle element displaced rearward.

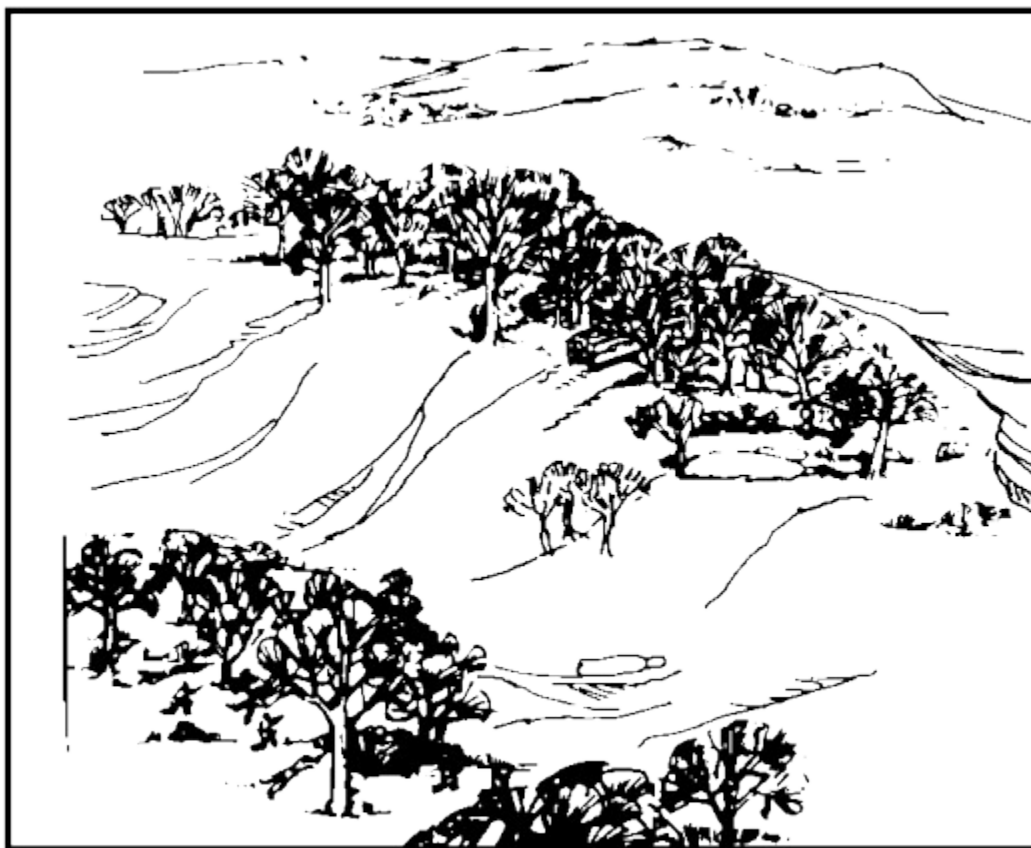


Figure 1-12. Fighting Vehicle Element Forward on Same Battle Position.

When the fighting vehicle element is forward, you should directly control the element. Your platoon sergeant controls the dismount element. Your squad leaders should be positioned where the primary fight is expected. In all cases, position yourself to stay abreast of the situation while still providing maximum control where the primary fight is expected.

Fighting Vehicle Element to the Flank on Same Battle Position. You should position the fighting vehicle element to the flank of the dismount element when the battle position has two avenues of approach--one with long-range and one with short-range fields of fire. This allows for good positioning of both the fighting vehicle element and dismount element; each is positioned on terrain best suited to its capabilities.

Position each BFV and dismount team, and assign primary and alternate positions and sectors of fire. These positions should be mutually supporting ([Figure 1-13](#)). During limited visibility, you may have to reposition a dismount team closer to the fighting vehicle element to provide it local security.



Figure 1-13. Fighting Vehicle Element to the Flank on Same Battle Position.

Fighting Vehicle Element to the Rear on Same Battle Position. You position the fighting vehicle element to the rear when covered positions are available for the dismount element but not for the fighting vehicle element, when the terrain is too restrictive for vehicle movement, or when multiple mounted avenues of approach exist. You place the fighting vehicle element in a position to overwatch the dismount element.

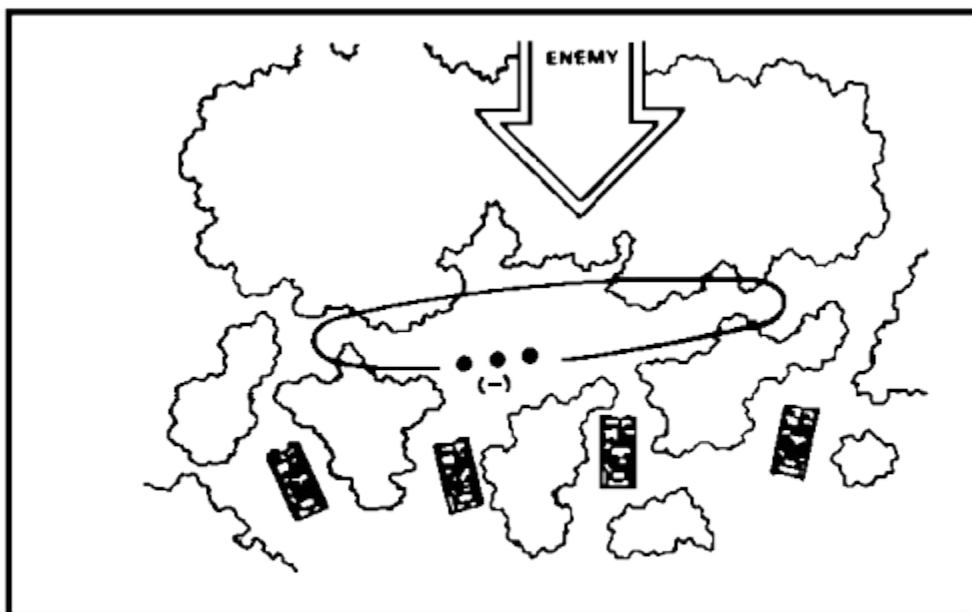


Figure 1-14. Fighting Vehicle Element to the Rear on Same Battle Position.

This method is best suited for avenues of approach that represent a dismounted threat.

You must recognize that the use of the 25-mm automatic gun in support of dismount teams requires some safety considerations. These are:

- High explosive 25-mm rounds arm 10 meters from the automatic gun and explode on contact.
- Armor-piercing discarding sabot (APDS) rounds discard their plastic sabots to the front of the automatic gun when fired. This necessitates a 175-meter safety fan to the front of the 25-mm automatic gun.

Elements on Separate Positions. The company or company team commander may elect to employ the fighting vehicle elements and dismount element separately, at least initially ([Figure 1-15](#)). With this method, the elements are physically separated and may be less capable of supporting one another. Hence, the elements are more vulnerable and control becomes more difficult. There are two ways this can be done.

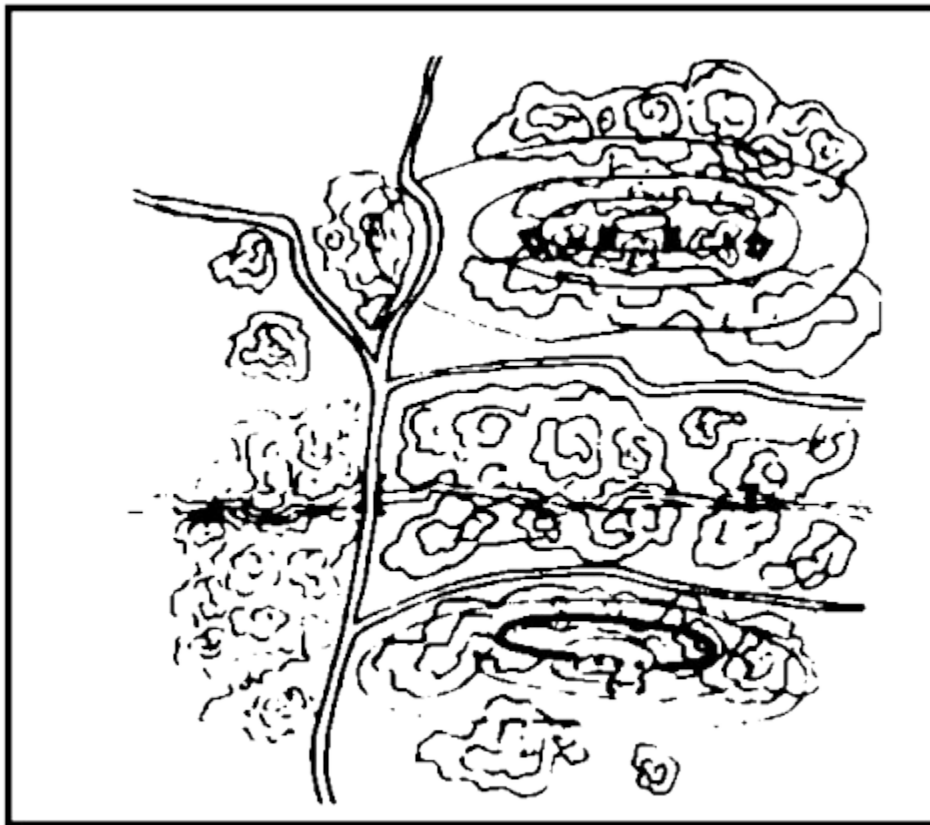


Figure 1-15. Elements on Separate Positions.

One way is to deploy the fighting vehicle element well forward to perform a specific mission. In this situation, you must not accept decisive engagement with the enemy by the fighting vehicle element, because the element does not have a dismounted fighting capability. Dismount teams that cannot be appropriately used forward are left in the rear to improve positions and emplace obstacles. Once the fighting vehicle element has completed its mission, it returns to the dismount element's position.

Another variation would have the two elements fighting from two adjacent battle positions and rejoining only to move from those positions. This method is used when the dismount element is needed in one location and the fighting vehicle element in another and both can be effectively employed from separate battle positions. Situations where this might arise are:

- The primary position for the dismount element does not allow adequate fields of fire for the M2 weapons.
- Sufficient forces are not available and the commander needs to cover separate mounted and dismounted avenues of approach.
- The dismount element must occupy heavily wooded or rugged terrain that the M2s cannot traverse.

You must ensure covered and concealed routes are designated to the remount point for both the fighting vehicle element and dismount element. The remount point should be located as close to the dismount element as possible.

Mounted on a Single Position. Your platoon defends mounted from a single position when maximum advantage can be gained by long-range antiarmor engagement with the M2 weapons and no major advantage can be gained by deploying a dismount element. This method may be used when your platoon must fight immediately upon occupying a position and time does not allow preparation of dismounted fighting positions, or when you have been alerted to be ready to move to another battle position on short notice ([Figure 1-16](#)).

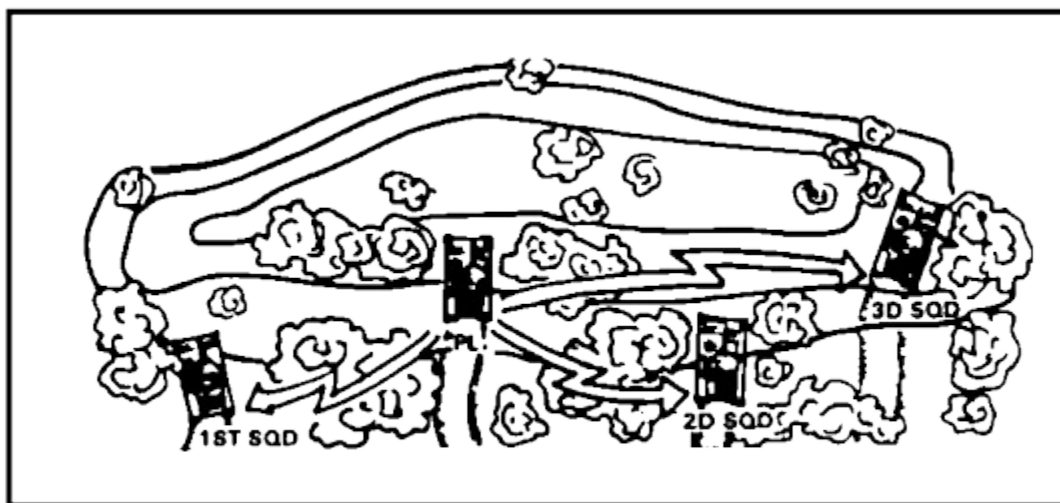


Figure 1-16. Mounted on a Single Position.

You must ensure that each squad dismounts a small force (two or three men) for local security each time it halts. The remainder of the dismount teams should deploy and begin preparing fighting positions if a long stay is anticipated.

8. Summary.

This concludes the discussions on employing an M2 platoon on battle positions. We covered the three methods of employment: fighting vehicle teams and dismount teams on the same battle position; vehicle and dismount elements on separate positions, and mounted on a single position. The advantages and disadvantages of each method were discussed along with the tactical considerations that will require you to vary the employment methods. We will now cover how to conduct a defense with an M2 platoon.

PART D - CONSOLIDATE AND REORGANIZE A M2 BRADLEY PLATOON

1. General.

When the enemy attacks, your BFVs that have been designated to engage at long range, fire at priority targets, and then move to alternate positions. Some of these BFVs may be designated to engage enemy armor with TOWs, while other engage enemy command and control vehicles, infantry carriers, and air defense artillery (ADA) weapons with the 25-mm gun. As the enemy advances, friendly tanks begin to engage enemy tanks. Friendly obstacles, covered by direct and indirect fire, break up enemy formations and deny enemy elements mutual support. As enemy vehicles move into primary engagement areas, they are engaged on the flanks and rear by BFVs. Dismounted infantry, preferably located on reverse slopes for protection or on hindering terrain, engage enemy elements at relatively close ranges using their Dragons, LAWs, SAWs, and company's small arms. If the company's defensive plan calls for movement to subsequent positions to complete the destruction of the enemy, your BFVs and dismounted infantry move by covered and concealed routes to remount points and then to subsequent positions. Once the enemy has been destroyed, units reorganize and resupply and prepare for subsequent missions.

2. Control of Initial Fire.

When your M2 Bradley platoon is defending against an attacking enemy force, you must engage with longest-range weapons first. To have an effective defense you must also engage targets with the proper weapons systems, and control fires, both indirect and direct. You control the opening of initial fire in stages, based, in part, upon the effective range of the weapons available. A typical sequence might be:

<u>WEAPON</u>	<u>RANGE (METERS)</u>
Indirect Fire	3,000+
TOW 2	3,750
25-mm Cannon	3,000
25-mm Cannon (APDS)	1,750
7.62-mm M240C Machine gun	900
M249 SAW	1,000

Dragon	1,000
M16	300
M203	300
LAW	200

3. Methods of Controlling Fire.

You must establish a simple and effective means of controlling the fires of the platoon to insure that the frontage is properly covered. The following methods can be used:

- Standing Operating Procedures. SOPs are actions squad leaders and platoon members perform automatically without command. This eliminates many commands and simplifies control, but SOPs must be well understood by all members and thoroughly rehearsed during training.
- Wire. Use wire whenever possible to communicate instructions to subordinate leaders. Wire is easily broken by artillery, small arms, grenades, etc., however, so a backup communications plan must be established.
- Radio. There are several radios in the M2 platoon to assist in controlling the platoon during battle. An alternate communications plan must be established in case of jamming or radio failure.
- Oral. This is an effective method of control unless the leaders are too far away or the noise of battle makes it impossible to hear.
- Prearranged Signals. These are either visual or sound signals, such as pyrotechnics or blasts on a whistle. These signals should be included in the company or platoon SOP and must be clearly understood by all platoon members.
- Arm-and-Hand Signals. This is an effective method of control when the leaders can see each other.
- Personal Contact. In many situations, you will have to move from leader to leader to issue instructions.
- Passing Orders from Man to Man. This is an effective method when the order is simple and time is not critical.

4. Engagement of Targets with Proper Weapon System.

You engage target by type of weapon as outlined below:

<u>WEAPON</u>	<u>PRIMARY TARGETS</u>
TOW	Tanks
25-mm Cannon	BMPs/BTRs
7.62-mm M240C Machine gun	Antitank Guided Missiles

	(ATGM)/Infantry
M249 SAW	Infantry
Dragon	Tanks/BMPs/BTRs
Rifles/Automatic Rifles	Infantry
LAWs	Tanks/BMPs/BTRs
M203	Infantry/BMPs/BTRs

5. How Fighting Vehicle Elements Defend.

The BFV equipped platoon can defend better against a greater variety of threats than previous mechanized platoons. With the BFV and its 25-mm gun, TOW, and 7.62-mm coaxial machine gun, infantry can now defeat mounted attacks at longer ranges and win the close-in fight. In the defense, the BFV's fire power is employed in the following manner:

- TOW. Primary targets for the TOW are enemy tanks. Because of the small number of TOW rounds on the BFV, it is critical not to waste missiles on targets that can be killed by other weapons. The basic rule for TOW use is to engage enemy tanks as soon as they are in range and on the flanks. Accurate preparation of a range card aids the gunners and Bradley commanders in determining that enough exposure time is available for a hit.

When a TOW is fired, the BFV must move to an alternate firing position to avoid enemy return fire. Once two TOWs have been fired, the launcher must be reloaded. The BFV should move to a hide position, reload, and then move to an alternate firing position. Hide positions were discussed in Part C of this Lesson. You must be kept informed of missiles on hand for firing. You or your platoon sergeant should request resupply during any lull in the battle, even if only a few missiles are needed.

- 25-mm gun. The 25-mm gun, firing APDS ammunition, can defeat the BMP1 and other light armored vehicles (BTR, BRDM) out to 2,200 meters. By engaging BTRs and BMPs as they come into range within the platoon position, you can separate the enemy infantry from his tanks by forcing him to dismount. Once dismounted, the enemy infantry is vulnerable to small arms and indirect fires. The 25-mm gun can continue to engage BTRs or BMPs, or switch to high explosive incendiary-tracer (HEI-T) to destroy or suppress dismounted infantry or thin-skinned vehicles. As with the TOW, time to reload the weapons system must be planned. APDS should be reserved for targets that cannot be killed with HEI-T. Also, HEI-T should be held for targets that cannot be killed or suppressed with the 7.62-mm coaxial machine gun. HEI-T and APDS should be reloaded at every chance to avoid running out of ammunition during an enemy attack. Adding ammunition to existing links is quicker than loading empty weapons. When changing from one type of 25-mm ammunition to another, the first round fired will be of the type previously selected because that round is already chambered.
- 7.62-mm coaxial machine gun. The coaxial machine gun is effective in suppressing antitank guided missiles (ATGMs) and enemy machine gun positions, defeating thin-skinned vehicles,

forcing armored vehicles to button up, and engaging troops on foot or riding on the outside of tanks. The 7.62-mm coaxial machine gun should be used whenever possible to conserve the larger caliber ammunition. Keeping the coaxial machine gun at maximum ammunition load is just as critical as for the 25-mm gun. It should be reloaded to capacity at every chance.

The BFV leader moves to an alternate firing position to avoid effective enemy fire or to gain a better firing position in the desired sector of fire or engagement area. This movement may be directed by the fighting vehicle element leader or may be done automatically by the squad leader if his position has been discovered and targeted by the enemy. The fighting vehicle crew must avoid multiple engagements from the same firing position when the enemy is returning effective fire. Movement of individual vehicles must be coordinated so that all vehicles will not be out of firing positions at the same time. Normally, movement to supplementary positions is directed by you. This movement normally involves all parts of the fighting vehicle element moving at the same time, but it may be done by single BFVs or by pairs.

If effective enemy fire forces a BFV to leave its position, the onboard smoke-grenade launchers or smoke-screen generator can be used to conceal the vehicle's movement. Employment of smoke is discussed further in [Part B, Lesson Three](#).

If the platoon is ordered to move to another battle position, and if its elements are located together, the fighting vehicle element may continue the fight while the rifle teams remount the vehicles. When the elements are separated, the dismount element should notify the fighting vehicle element leader before movement to the remount point. The BFV then moves to the remount point to pick them up. If either element becomes decisively engaged, then the platoon must disengage. To avoid decisive engagement, the platoon must move quickly. An enemy force traveling at 20 kilometers per hour moves 1 kilometer in only three minutes. To slow the enemy, the fighting vehicle element increases its rate of fire and the FO adjusts for indirect fire and smoke on the enemy. Emplaced barriers and mines also will slow the enemy attack. The BFV's smoke-generators, if needed, can be used to supplement the smoke provided by indirect fire. Remounting considerations are explained in greater detail in [Part A, Lesson Two](#).

6. How Dismounted Elements Defend.

When the tactical situation requires you to dismount your platoon, the dismount elements defend in the following manner.

Defending Against a Dismounted Attack. During an attack, the enemy infantry will advance as far as possible mounted in BTRs and BMPs. When forced to dismount, usually 300-400 meters from your position, the infantry will continue the attack on foot supported by indirect fire, tanks, BTRs, and BMPs. Indirect fires should be placed as fast as possible on the enemy's dismounted forces.

The dismounted elements should engage the attacking enemy force as soon as it comes within the element's sector of fire. Targets in the primary sector of fire have priority. But, when no targets show in the primary sector, targets in the secondary sectors are engaged.

As the enemy begins the assault, you and your FO should call for all FPFs. A heavy stream of fire is maintained until the enemy assault is halted. The rate of fire is then reduced to save ammunition.

When the enemy assault is repelled, you reorganize your positions. You get a status report from each squad, ensure that key weapons are manned, designate replacements for key leaders, and report the status to the company team commander.

Retreating enemy forces are often disorganized and exposed to fire. You should keep calling for indirect fire and be prepared to quickly remount the BFVs and counterattack, if ordered to do so.

Dismounted Infantry Defending Against a Mounted Attack. Riflemen and SAW gunners should direct their fires at exposed crew members to force them to close their hatches, and at dismounted infantry moving along with the tanks. If the enemy infantry can be separated from his tanks, the tanks become vulnerable to infantry antiarmor weapons.

Dragons are used to engage enemy tanks as soon as the tanks enter their sectors of fire. They may be fired at enemy tanks in secondary sectors of fire when no tanks are seen in primary sectors of fire. When engaging targets, antiarmor specialist should make maximum use of the frontal protection of their positions and try for flank shots at target tanks (Figure 1-17). Dragon engagement should be controlled by your squad leaders because of the scarcity of ammunition.

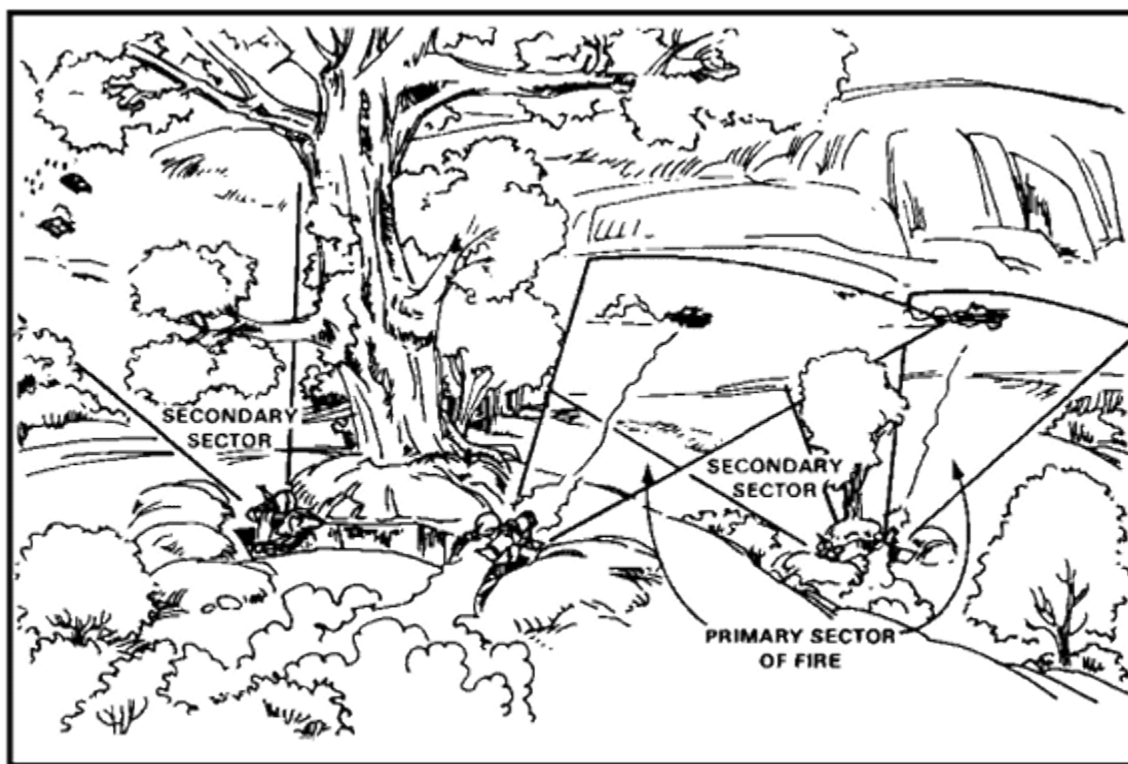


Figure 1-17. Dragon Flank Shot.

LAWs are fired at enemy armored vehicles that close on the rifle team's position. Squad leaders should hold LAW fire until enemy vehicles come into the protective minefield, or close enough so that LAW hits can be made on the sides of the target vehicles. A squad leader will normally have better results if his entire team hits one enemy tank with surprise volley or pair fire.

Squad leaders fire dual-purpose M203 ammunition at BTRs and BMPs, preferably from the sides. As with the LAW, they should wait until the targets are close enough to ensure a hit.

7. Preparing for the Next Attack.

When an enemy assault is repelled, you must prepare your platoon to counterattack, to continue the defense in place, or to displace. If you are directed to hold your present positions, the platoon must quickly prepare for more enemy attacks. Your platoon must take those consolidation and reorganization actions which are covered later in this part of lesson one.

8. Summary.

This completes the discussions on directing Bradley fires in the defense and conducting the defense by a Bradley platoon. We covered the importance of engaging with the longest weapons first, engaging targets with the proper weapons systems, and methods of controlling fires to ensure that the frontage is properly covered. We also discussed how the platoon employs its TOWs, 25-mm gun, 7.62mm coaxial, and the importance of moving to alternate firing positions to avoid effective enemy fire or to gain a better firing position. We also covered how the dismount elements defend against dismounted and mounted attacks, and how you must prepare your platoon for the next attack. We now move to actions the platoon must take as it consolidates and reorganize after repelling an enemy attack.

9. Consolidate and Reorganize an M2 Bradley Platoon.

When your M2 Bradley platoon is defending a position and you have just repelled an enemy assault, you must prepare to counterattack, to continue the defense in place, or to displace. You must reorganize and consolidate your platoon well enough to:

- Reestablish local security and man the most potent weapons first.
- Reestablish chain of command.
- Redistribute or resupply ammunition and weapons.
- Supervise evacuation of dead or seriously wounded.
- Reorganize platoon to compensate for personnel/vehicle losses.
- Restore communications.
- Replace obstacles and camouflage.

10. Consolidation and Reorganization.

When an enemy assault is repelled; you must immediately prepare your platoon to meet a renewed assault. To accomplish this task, you must follow many of the same procedures used for the reorganization after an offensive action:

- Reestablish the chain of command. Ensure that all key positions are filled by the remaining platoon members and that all members are made aware of the new chain of command.
- Reestablish local security. If the OPs withdrew to the defensive position, send them back out. If they did not get back, check their status and take appropriate action to get another OP(s) established as soon as possible. Implement your sleep/alert plan again as soon as feasible.

- Redistribute/resupply ammunition and weapons. Ensure your squad leaders pass out new ammunition, if available, and equalize that remaining. Take a quick inventory and request a resupply, if required.
- Repair or evacuate damaged/disabled M2 vehicles. If necessary, crossload men, equipment and ammunition to the platoon's remaining vehicles.
- Reposition fighting positions and weapons positions. If you have just repelled an attack, the enemy may have found some of your positions. Reposition those that have been compromised.
- Reestablish communication. Check your wire to ensure it was not cut during the attack. Change your pyrotechnic signals if you think the enemy may have learned what they mean.
- Evacuate and replace casualties.
- Restore camouflage and improve positions. Take caution not to overcamouflage a position. If the position was not found during the first assault, chances are it will not be found during the next try.
- Replace obstacles. If the enemy withdraws far enough and if time permits, replace obstacles, mines, and early warning devices. This is a risky task, especially if the enemy has snipers. Your troops must be careful. Request smoke to cover their movement or wait until darkness.
- Resupply. After inventories are taken, submit requests for all needed supplies.
- Use snipers. If you have snipers, this is a good time for them to be active. They may be employed with the OPs or from a vantage point on or behind the defensive positions.
- When directed, dismount team-size or squad-size patrols may be sent out.

This completes lesson one. You should know how to prepare and issue an oral platoon OPORD, how to designate primary, alternate, and supplementary positions for key weapons, how to prepare a defensive position for an M2 Bradley platoon, how to employ a Bradley platoon on battle positions, conduct the defense and direct the fires of a Bradley platoon, and how to consolidate and reorganize your platoon after repelling an enemy attack. After reviewing all the material in this lesson, you should complete the practice exercise for lesson one. Answers and feedback for the question in the practice exercise will be provided to show you where further study is required.

Lesson 1

Practice Exercise

Instructions

The following items will test your understanding of the material covered in this lesson. There is only one correct answer for each item. When you have completed the exercise, check your answers with the answer key that follows. If you answer any item incorrectly, review that part of the lesson which contains the portion involved.

Situation: You are a Bradley platoon leader. Your company team is preparing to defend battle positions (BP) 60, 70 and 80. You are performing your troop leading procedures to prepare your platoon for its defensive mission.

1. Before you complete the OPORD you must have
 - ☐ A. issued a fragmentary order.
 - B. completed your analysis, reconnaissance, and developed your plan.
 - C. analyzed the company commander's warning order.
 - D. reviewed the battalion defense OPORD.
2. You have been assigned your platoon's sector of responsibility and are designating positions for your Dragons and SAWs. You placed a SAW on a flank of your position. You must now
 - A. assign a PDF and a FPL.
 - B. make sure it is disposed laterally and in depth to cover a designated kill zone.
 - C. make sure it is tied in with the adjacent unit fires to prevent gaps.
 - D. maintain central control of all the SAWs.
3. You are preparing your platoons defensive position. Your 1st squad leader is directing the emplacement of antitank mines on likely tank routes into his position. He should
 - A. place the mines where they can be covered by AT-4 fire.
 - B. place at least two mines for each one man position.
 - C. place the mines where they can be seen.
 - D. cover the mines with claymores.

4. You are employing your fighting vehicle element to the rear on the same battle position. You
 - A. are covering two avenues of approach - one with long-range and one with short-range fields of fire.
 - B. want to gain better observation and field of fire.
 - C. use this method when multiple mounted avenues of approach exist.
 - D. use this method when the dismount element is needed in one location, and the fighting vehicle element in another.
5. Your M2 platoon is conducting a defense. When the enemy attacks, your BFV's that have been designated to engage at long range,
 - A. engage infantry carriers with the TOW.
 - B. call for your FPFs.
 - C. begin effective surprise fire with the coaxial machine guns, and call for indirect FPFs.
 - D. fire at priority targets and move to alternate positions.

LESSON 2

PLAN AND CONDUCT A WITHDRAWAL

Soldier's Manual Tasks	071-326-5833	Plan a Withdrawal Not Under Enemy Pressure.
	071-326-5832	Conduct a Disengagement by a Platoon While Under Enemy Pressure.

OVERVIEW

TASK DESCRIPTION: Plan and Conduct a Withdrawal.

LEARNING OBJECTIVE:

TASKS: Identify how to plan a withdrawal not under enemy pressure and under enemy pressure, and identify how to conduct a disengagement by a platoon while under enemy pressure.

CONDITIONS: You will be given subcourse material for this lesson, and a training scenario. You will complete the practice exercise at the end of this lesson.

STANDARDS: The student will demonstrate his comprehension and knowledge by identifying how to plan a withdrawal not under enemy pressure, and under enemy pressure, and identify how to conduct a disengagement by a platoon while under enemy pressure.

REFERENCES: The material in this lesson was derived from the following publications.

[FM 7-7J](#)
STP 7-11M34-SM

PART A - PLAN A WITHDRAWAL NOT UNDER ENEMY PRESSURE AND UNDER ENEMY PRESSURE

1. General.

A withdrawal is an operation in which a force frees itself for a new mission. It may be conducted with or without enemy pressure. When ordered to withdraw, the company or company team disengages (if in contact) and moves to the specified area. It may do this alone, or as a part of a battalion or battalion task force.

The method the company or company team commander uses to withdraw depends on enemy pressure. If the enemy is attacking or is expected to attack during the withdrawal, a withdrawal under pressure is conducted. If the enemy is not attacking and the commander thinks that by stealth he can withdraw before the enemy can react, he can conduct a withdrawal not under pressure

2. Withdrawal Not Under Enemy Pressure.

This part of the subcourse will cover planning for a withdrawal not under enemy pressure. We will cover a situation where your platoon performs as the company security force, and a situation where your platoon will be responsible for its own security.

A withdrawal not under enemy pressure is conducted with speed, secrecy, and deception. It is best done at night or during other periods of reduced visibility. Platoons conduct the withdrawal as part of a larger force to reposition for another mission (for example, to delay the enemy, to defend another position, or to attack some other place). The company commander will designate in the company OPORD whether the platoon is to act as the company security force or withdraw as part of the company and leave a platoon security force behind.

Platoon as the Company Security Force. When your platoon acts as the company security force, it is given the mission to cover the entire company area. You must plan for the repositioning of squads and weapons to cover the company's withdrawal ([Figure 2-1](#)). This includes repositioning a squad in each of the platoon positions to cover the most dangerous avenue of approach into that position, and repositioning weapons to cover the most dangerous avenues of approach into the company's position. In this situation, the security force commander will normally be the company executive officer or a platoon leader.

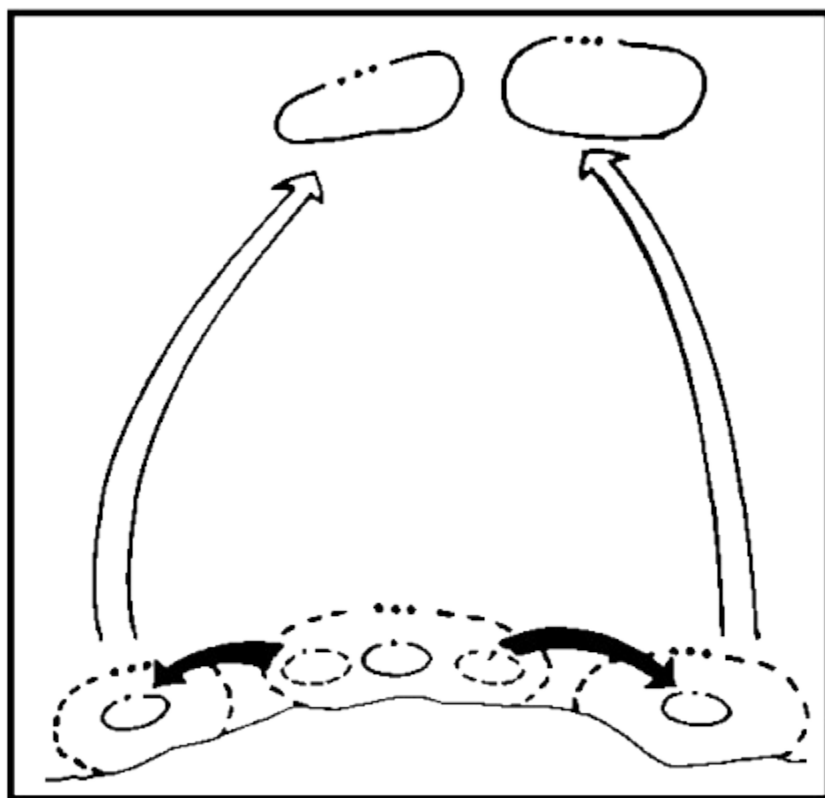


Figure 2-1. Platoon as Company Security Force.

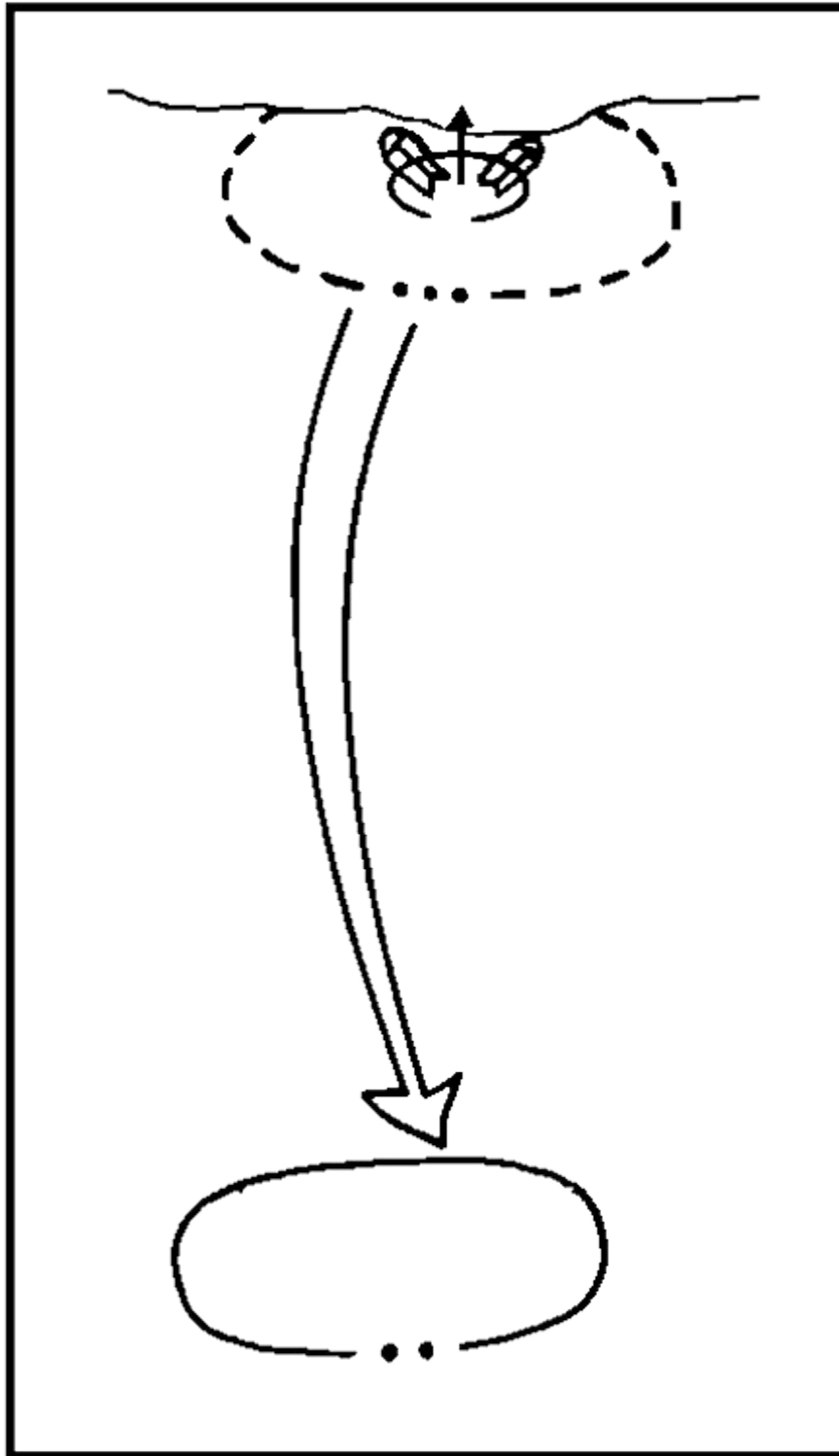


Figure 2-2. Platoon Security Force.

Platoon Responsible for Own Security. When your platoon is responsible for leaving its own security force, the force will consist of one squad, one SAW, and two Dragons ([Figure 2-2](#)). The platoon

security force leader is the squad leader of the squad left in position. This squad will reposition itself to cover the platoon withdrawal and the entire platoon's area. When the withdrawal begins, each platoon security force comes under the control of the company security force commander.

Security Force. The security force (in both situations) strives to conceal the withdrawal and deceive the enemy by continuing the normal operating patterns of the company. If the enemy attacks during the withdrawal, the security force covers the withdrawal by fire. Once the company is at its next position or a designated distance from the old positions, the company security force commander will order withdrawal of the security force. These orders should be given by telephone or code-word over the radio. The security force withdraws using the same basic plan as the company main body. If under attack, the security force may have to conduct fire and maneuver to the rear until contact is broken and then assemble to move to the rear.

Quartering Party. The company commander may send a quartering party to the next position before the withdrawal starts. This party is made up of company headquarters troops, and representatives from each platoon. Platoon representatives are usually your platoon sergeant and a guide for each squad. When at the next position, your platoon representatives reconnoiter and, as appropriate, pick positions, sectors, routes, and OPs for the platoon. When the platoon arrives, the squad guides meet and guide their squads into position. Your platoon sergeant meets and briefs you on the position.

Planning the Withdrawal. With regard to planning, the company commander tells you in the company OPORD:

- When the withdrawal will start.
- Where the platoon assembly area is.
- Where the company assembly area is and what each platoon is to do upon arrival in it (when the company is assembled, it moves under its commander's control to the next position).
- What route to take from the platoon assembly area to the company assembly area.
- The size, composition, and commander of the security force.
- What are the company's and platoon's next missions.

Based on the information received from the company commander, you plan for and tell your squad leaders:

- When the withdrawal will start.
- Where the squad assembly areas are.
- Where the platoon assembly area is and what each squad is to do on arrival there.
- What routes to take from the squad assembly areas to the platoon assembly area.
- The size, composition, and commander of the security force.
- What the platoon's and squad's next mission is.

3. Summary.

This completes the discussions on a withdrawal when the enemy is not attacking. We will now cover conducting a withdrawal under enemy pressure.

4. Withdrawal Under Enemy Pressure.

A platoon's withdrawal under enemy pressure is conducted as part of a company's withdrawal. The withdrawal is conducted when the company is forced from its defensive positions, to either continue the defense or disengage and move elsewhere for another mission. Your platoon tries to disengage from the enemy by fire and maneuver to the rear. Once your platoon has disengaged and moved to the rear of its original position, the company commander will direct what it is to do next. This may include covering the rearward movement of other platoons, occupying a new defensive position, or moving to perform another mission.

Sequence of Withdrawal. The company commander controls the sequence of withdrawal of the platoons. His decision on which platoon to withdraw first is usually based on where the enemy attacks and how heavily each platoon is engaged. Once the decision is made to withdraw, the company commander will normally order the least heavily engaged platoon to withdraw first. That platoon then disengages and moves to a position where it can overwatch the disengagement of the more heavily engaged platoons. The platoons then change roles and leap-frog to the rear using fire and maneuver. This leapfrogging will continue until contact is broken or the company reaches a new defensive position ([Figure 2-3](#)).

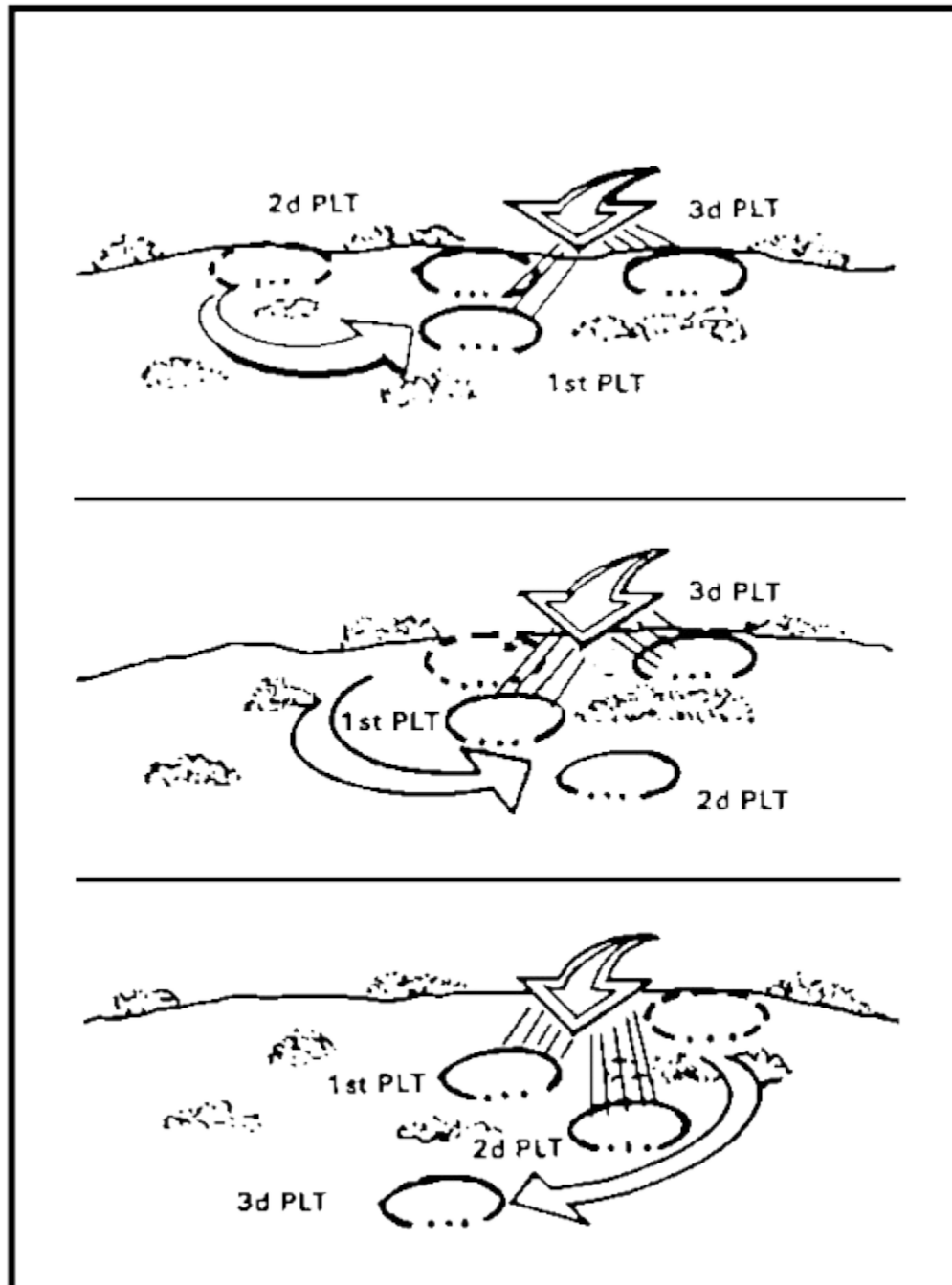


Figure 2-3. Withdrawal Under Pressure.

Methods of Disengagement. Platoons have three basic methods of disengaging from the enemy: by thinning the lines, by fire teams, and by squads. Fire and maneuver and bounding overwatch are keys to each method. The degree of fire and maneuver and bounding overwatch depends on how closely the enemy follows and the pressure he applies. These methods of disengagement are explained in greater detail in [Part B](#) of this Lesson.



Figure 2-4. Disengagement by Thinning the Lines.

- Disengagement by Thinning the Lines. The first stage of the fire and maneuver rearward is in the squads. Squad and team leaders have men move rearward singly to where each takes a firing position to cover the move of the others as they, in turn, move back ([Figure 2-4](#)).

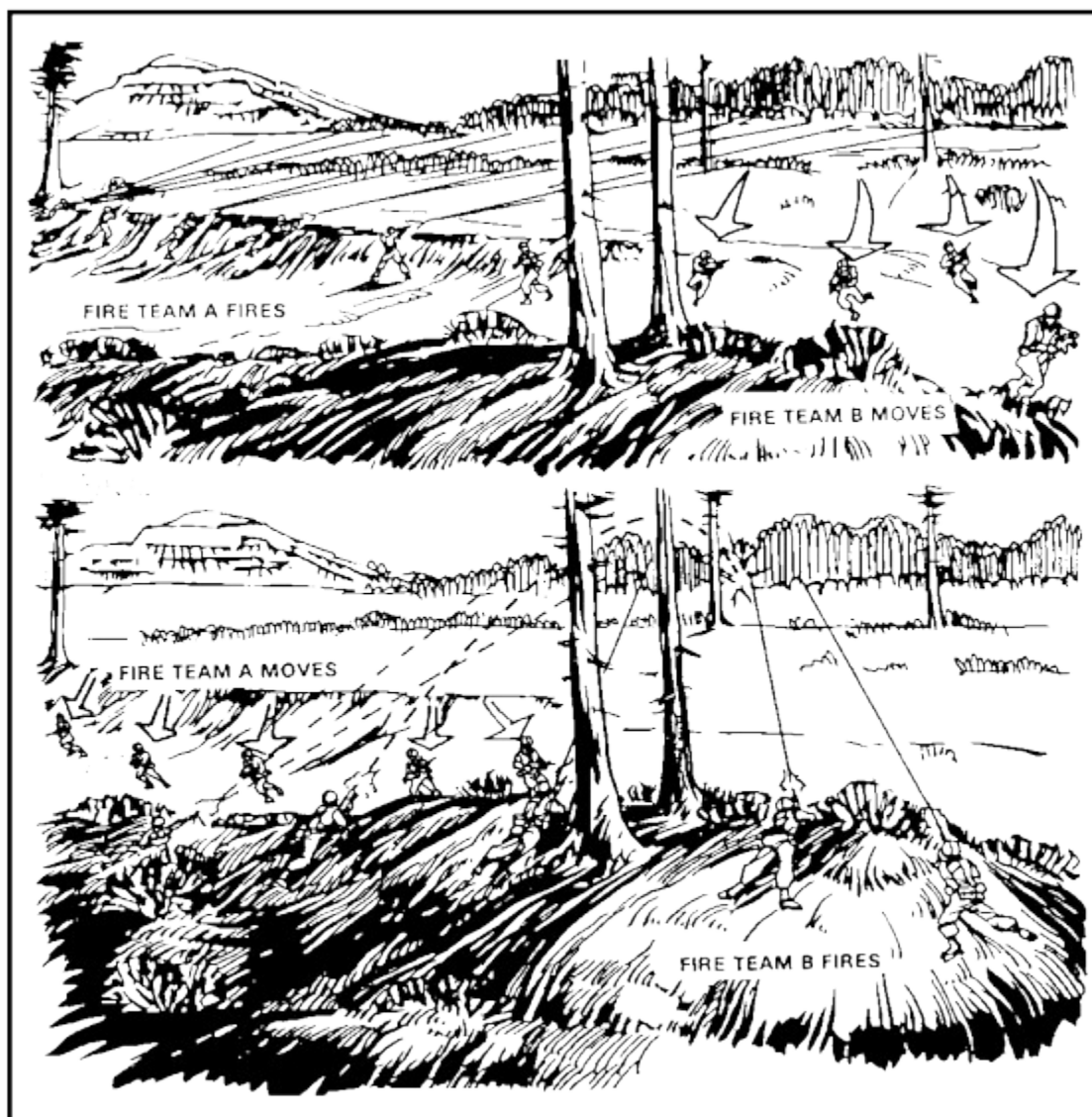


Figure 2-5. Disengagement by Fire Teams.

- Disengagement by Fire Teams. If enemy fire is such that thinning the lines is unnecessary, or if the squads have moved back far enough to make it unnecessary, the squads move back by fire teams. One team fires and the other moves. They alternate roles with each move ([Figure 2-5](#)).

- Disengagement by Squad. If enemy fire is such that fire and maneuver by fire teams is unnecessary, or if squads have moved back to a point where it is no longer necessary, the platoon moves back by squads. You have each squad, in turn, move back covered by the fire of the others ([Figure 2-6](#)).

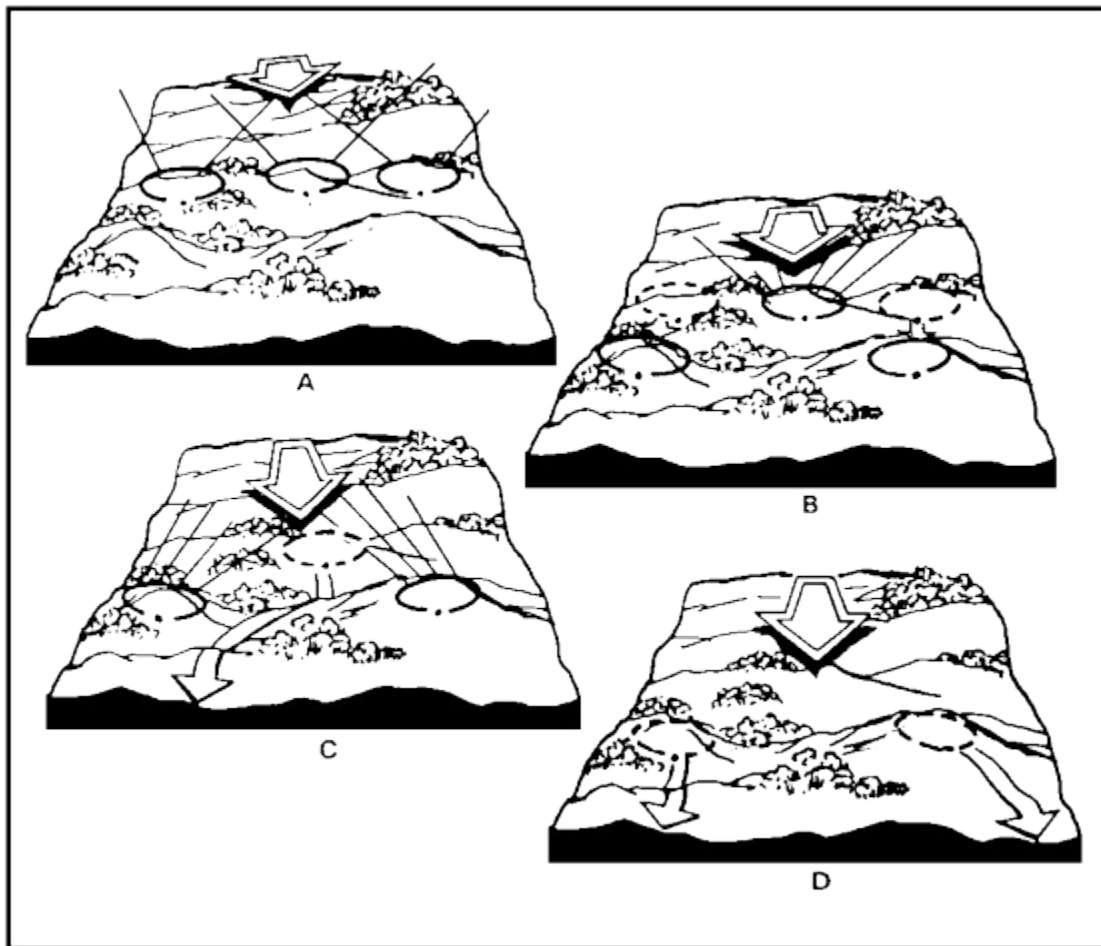


Figure 2-6. Disengagement by Squad.

Your platoon may use all three methods of disengaging as it moves rearward. As enemy fire lessens, the platoon changes to the next faster method of disengagement (first by thinning the lines, then by fire team, and then by squads). It uses only those methods (or that method) necessary for its safety while moving.

At some point in the action, the platoon can stop fire and maneuver. It will then continue its withdrawal by bounding overwatch to the rear. ([Figure 2-7](#)). This occurs when the platoon is no longer under enemy direct fire or when another platoon is covering its move. Once disengagement is complete, the platoon moves as directed by the company commander.

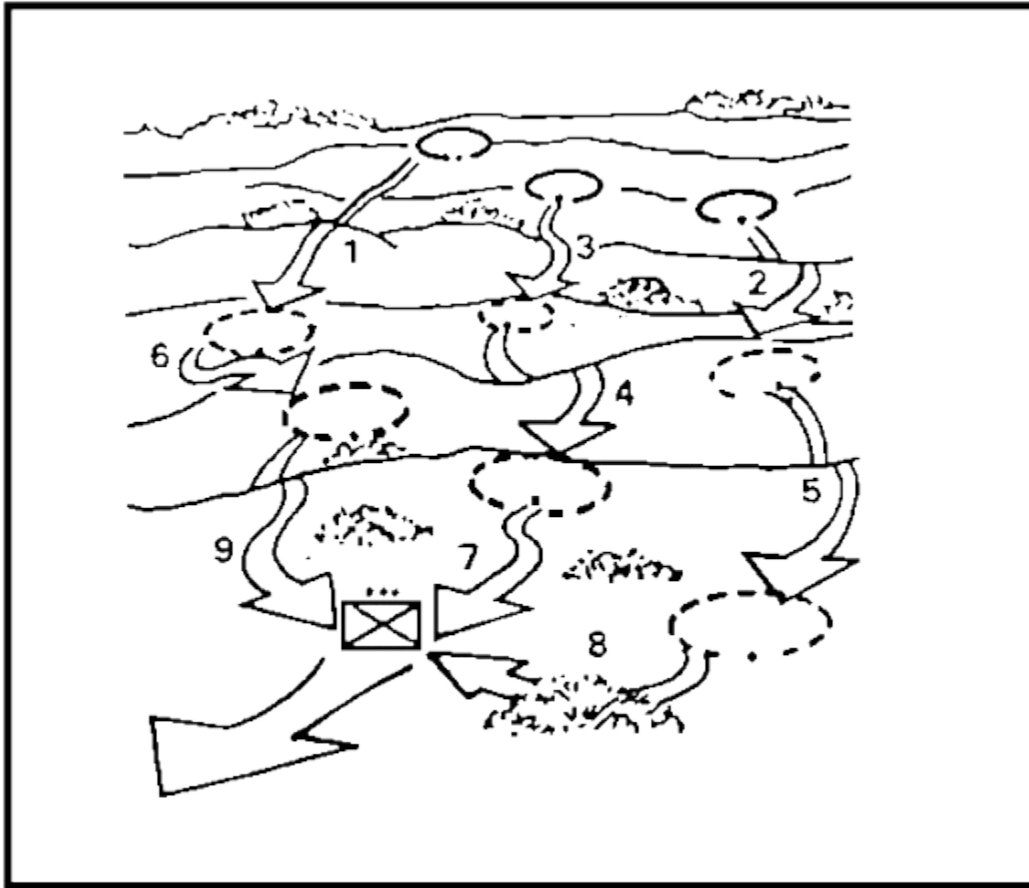


Figure 2-7. Bounding Overwatch to the Rear.

Because the actions taken during a withdrawal under enemy pressure depend a lot on the enemy's action (i.e., which squad is the most heavily engaged and the uncertainty of when the enemy will attack), you may have little time, if any, to plan for the withdrawal. You should therefore prepare a contingency plan for a withdrawal each time a platoon moves into a defensive position. Control measures, such as the signal to begin the withdrawal, the location of the next position, and routes to that position, should be planned and each member of the platoon should know them. Also, if time and the situation permit, each member should actually walk the route of expected withdrawal. If time permits, and before a plan for the platoon's withdrawal is begun, you should check with the company commander and find out what the company's plan is; this will ensure that your plan will support the company's.

5. Summary.

This completes the discussions on conducting a withdrawal not under enemy pressure and under enemy pressure. We discussed the composition of the security force, quartering party and planning the withdrawal not under enemy pressure. We highlighted the three methods of disengaging when withdrawing under enemy pressure, and who controls the sequence of withdrawal. Next, we will discuss in detail how a platoon disengages while under enemy pressure.

PART B - CONDUCT A DISENGAGEMENT BY A PLATOON WHILE UNDER ENEMY PRESSURE

1. General.

Your M2 Bradley platoon will disengage as part of a company or company team which is in contact.

When your platoon disengages, you must prepare a disengagement plan; control vehicle movement; direct fire and maneuver to the rear; maximize the firepower of the fighting vehicle teams to cover rearward movement; and protect the dismount element from exposure to enemy fires.

2. Planning a Disengagement.

Disengagement is the act of breaking contact with the enemy and moving away from him. You plan for the disengagement when you plan for the occupation of the battle positions. The plan must provide for the rapid remounting of the dismount teams when deployed. Keeping the platoon mounted or positioning the dismount teams with the fighting vehicle teams makes disengagement easier.

When you employ the fighting vehicle element and dismount element on separate positions, you must select a platoon remount point and routes to the remount point. The platoon remount point can be

- Near the dismount element position. For example [Figure 2-8](#).

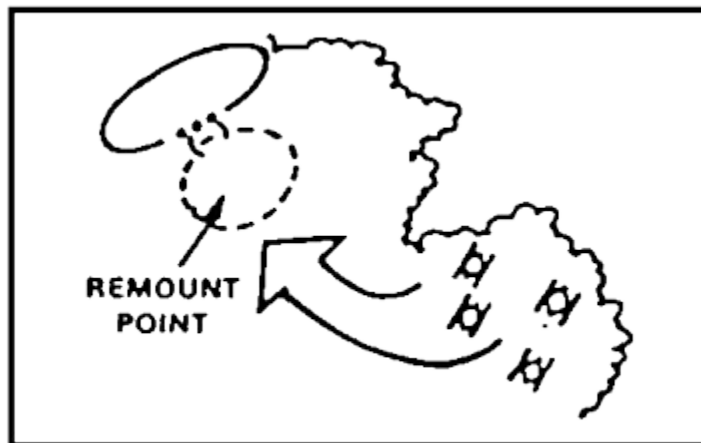


Figure 2-8. Remount Point Near the Dismount Element.

- Near the vehicle element position ([Figure 2-9](#)).

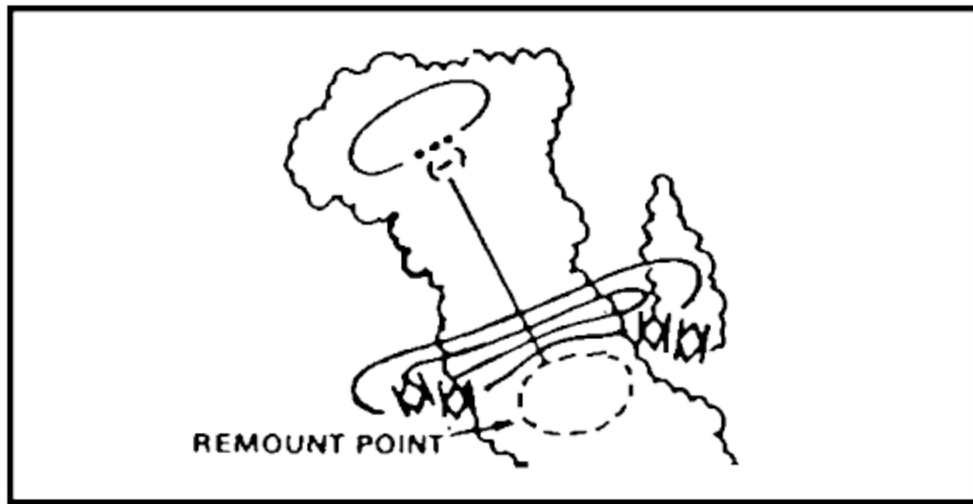


Figure 2-9. Remount Point Near the Vehicle Element.

- Between the two ([Figure 2-10](#)).

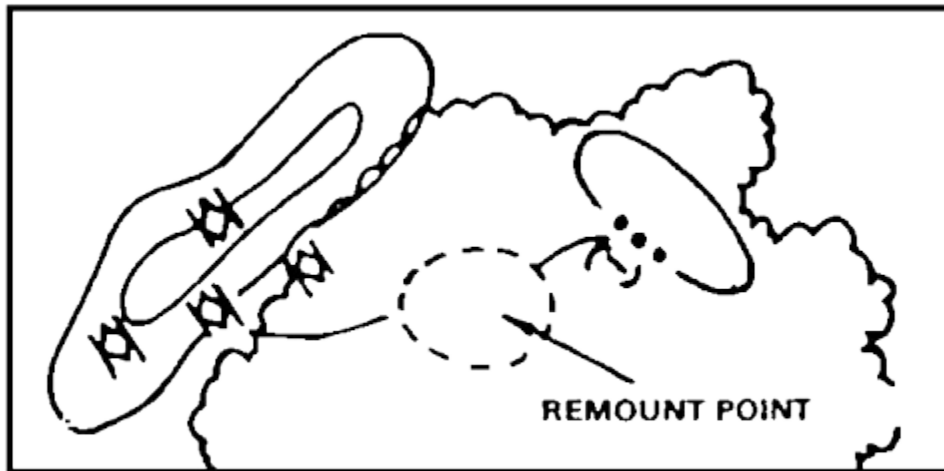


Figure 2-10. Remount Point Between the Two.

The remount point should have covered positions for the vehicles and should allow for easy remounting even when visibility is limited. Dismount team leaders must make sure their men know the location of the remount point, the location of the squad M2 in the area, and routes to the area. Routes to the remount point should be covered and allow speedy movement for both elements.

When planning for the disengagement, you should consider the following:

- M2s can move faster and have more protection from enemy small arms and artillery fragments than dismounted troops.
- The vehicle element will often shift from one firing position to another, so routes must be planned from each to the remount point.

- Following routes and finding a remount point will be difficult in battle and even more difficult during limited visibility. As a minimum, routes should be marked and reconnoitered by the drivers and track (Bradley) commanders (BC) from the vehicle element and by the dismount team leaders ([Figure 2-11](#)).

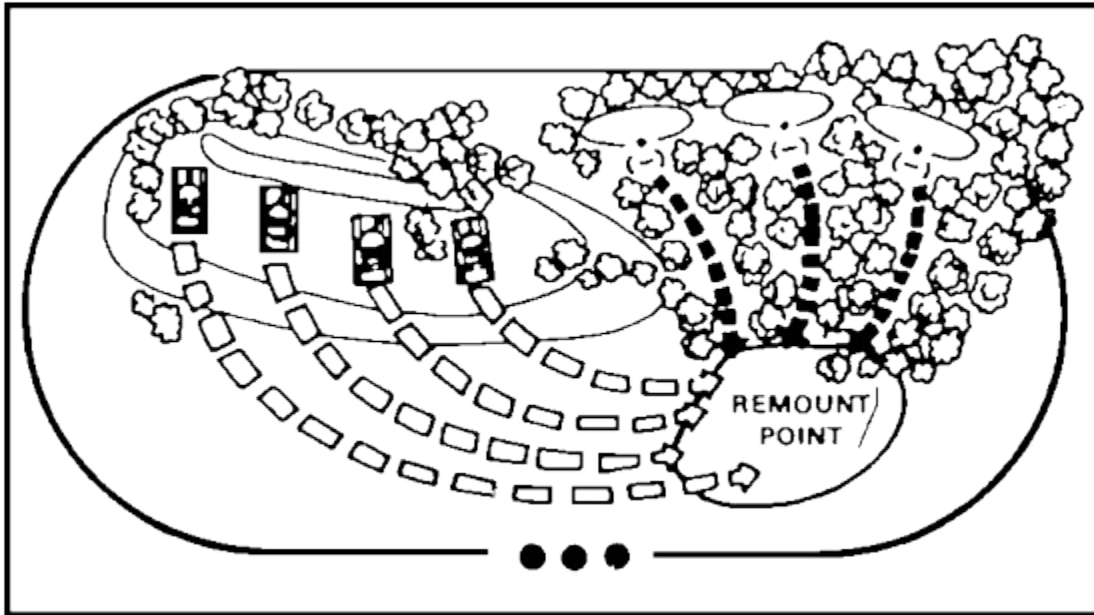


Figure 2-11. Routes to Remount Point.

3. Directing Fire and Maneuver to the Rear.

Fire and maneuver to the rear is the basic tactic for disengaging. Rapid movement and an effective base of fire are essential for a successful disengagement. You should:

- Direct one unit to act as a base of fire and hold off the enemy by fire or by holding terrain that blocks his advance while other units within the platoon maneuver to break contact ([Figure 2-12](#)).

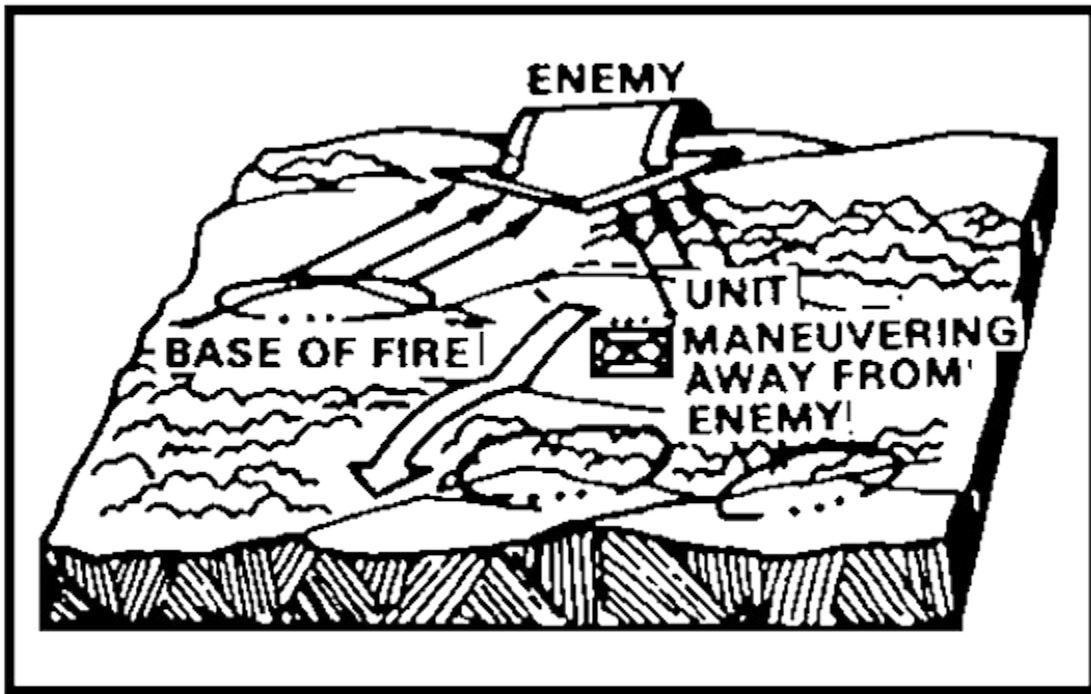


Figure 2-12. Breaking Contact.

- When the maneuvering unit gets to the next position, it provides a base of fire to cover the rearward movement of the forward unit ([Figure 2-13](#)).

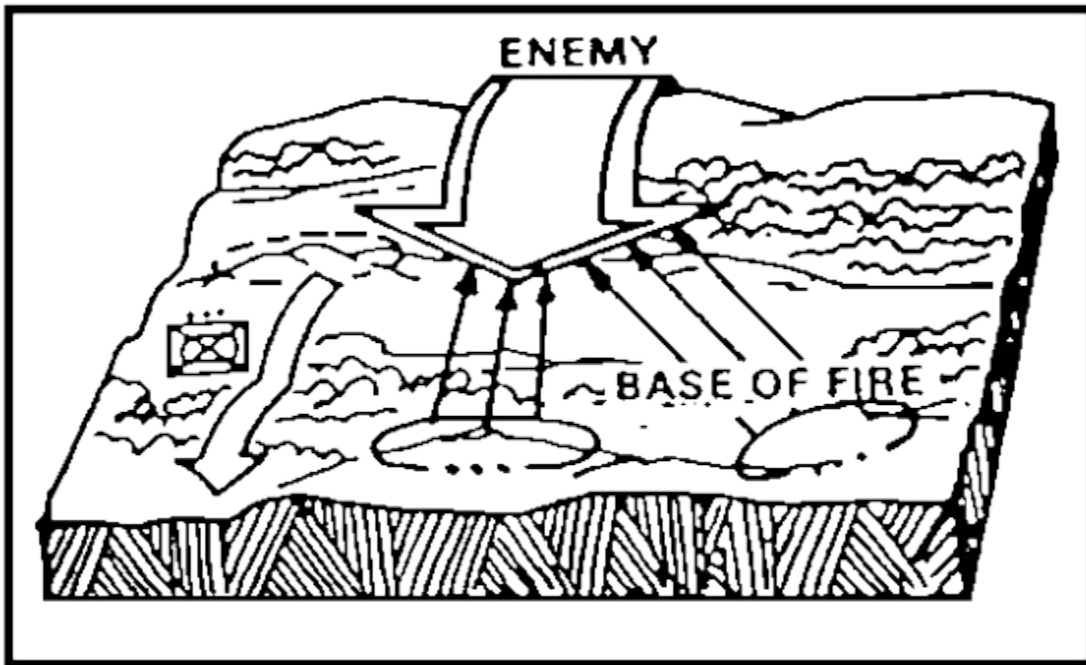


Figure 2-13. Rearward Movement.

- You repeat fire and maneuver in reverse until contact with the enemy is broken, until the unit passes through a higher level base-of-fire force, or until the units are in position to resume their defense.
- During fire and maneuver, M2s should back out of position and move, keeping a terrain feature between the vehicle and the enemy ([Figure 2-14](#)).
- The turret weapons should remain oriented in the direction of the enemy. Firing port weapons should be manned and ready to fire, especially from the rear firing ports. This is critical when a squad is operating at a reduced strength.

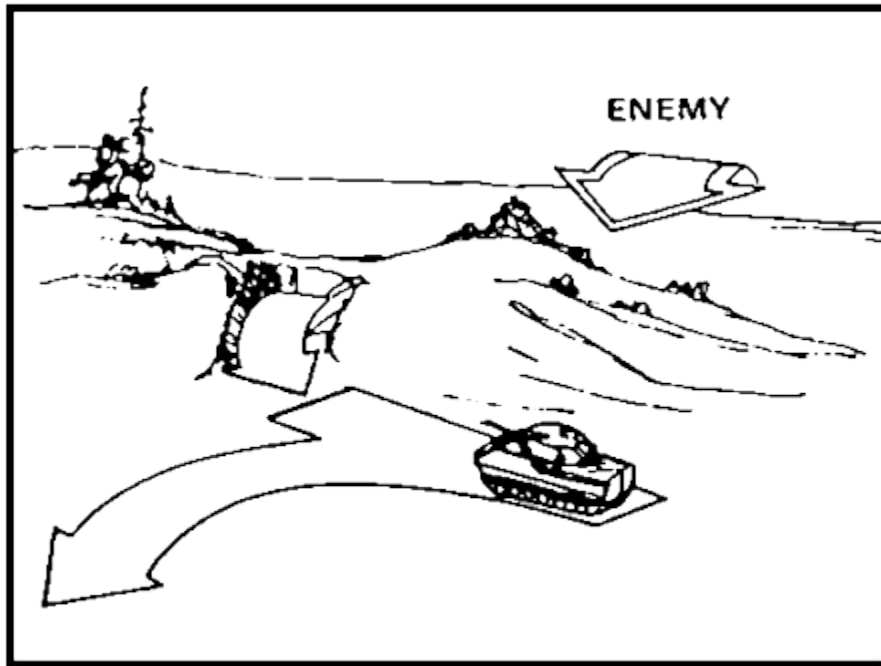


Figure 2-14. Back Out of Position and Move.

- When heavy indirect or small-arms fire is hitting the dismount element location, but no enemy antiarmor fire is coming on the position, the vehicle element should move to the dismount element's positions to reduce the dismount element's exposure to enemy fires.

4. How the Dismount Element Disengages.

When the dismount and fighting vehicle elements are separated, there are three ways the dismount element can disengage. Simultaneous disengagement (moving all teams at the same time) can be used when the element is covered by another force. When the dismount element must cover its own movement, it disengages by teams or by thinning the lines.

Simultaneous Disengagement. When the dismount teams simultaneously disengage, they assemble and move as one element as fast as possible to the remount point, using standard movement techniques. Simultaneous disengagement is favored when rapid movement is critical, the fighting vehicle element is adequately covering the disengagement, and the enemy has not closed on the dismount element or cannot fire at it. Simultaneous disengagement can be used when the dismount element can move before the enemy can close on the position because of an obstacle between the dismount element and the enemy.

Disengagement by Dismount Teams. When the dismount element must cover its own movement, the dismounted element leader directs one or two teams to remain in position as a base of fire. The rest of the dismount element maneuvers to the rear.

Teams left in position must fire into the entire dismount element's sector to cover the maneuver of the dismount teams ([Figure 2-15](#)). Sectors of fire are adjusted to get better coverage of the element's sector ([Figure 2-16](#)).

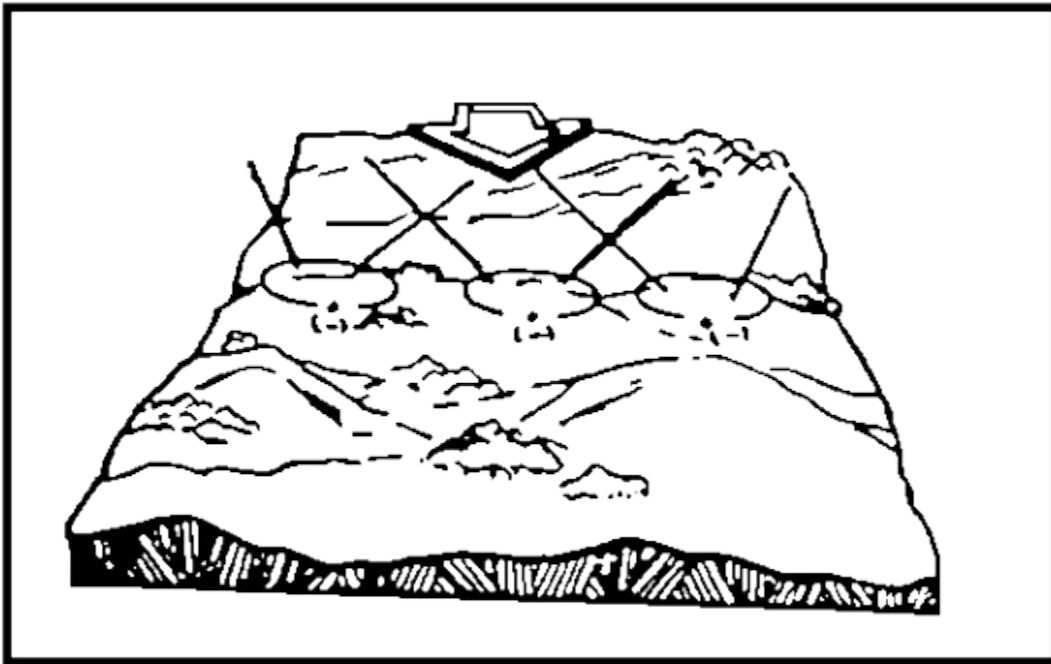


Figure 2-15. Normal Sectors of Fire.

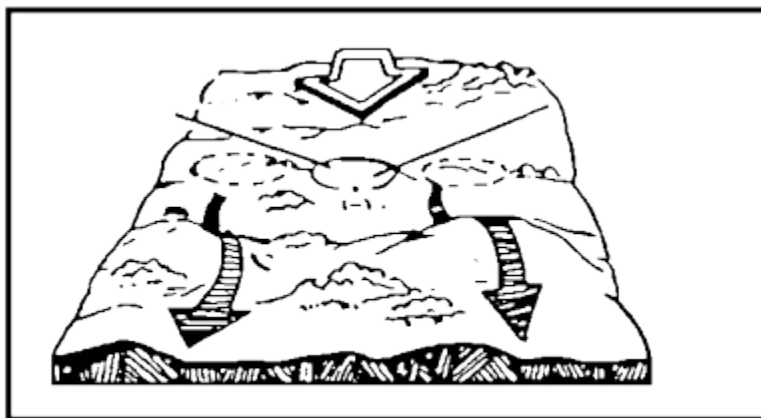


Figure 2-16. Changed Sectors of Fire to Cover Withdrawal.

The teams left in position disengage when the rest of the element is in position to cover their disengagement ([Figure 2-17](#)).

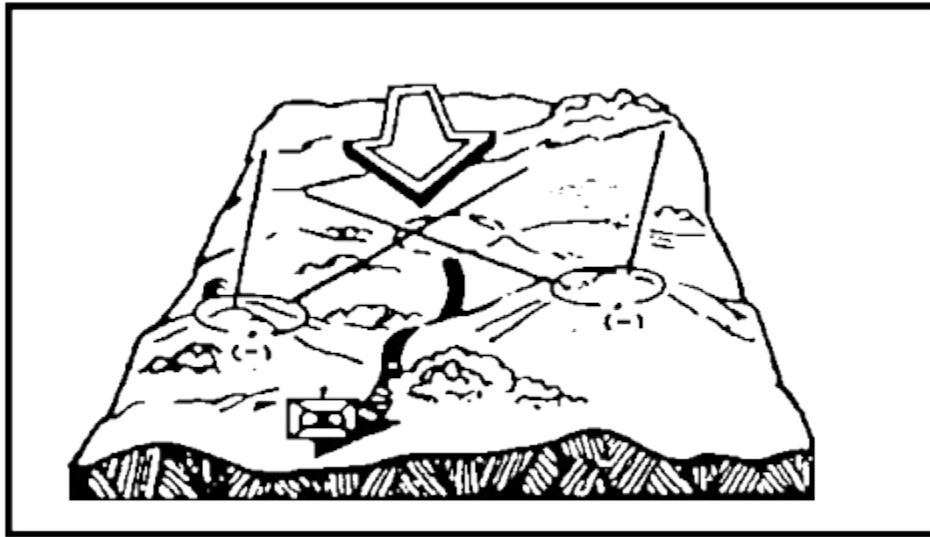


Figure 2-17. Disengage Teams Left in Position.

Disengagement by Thinning the Lines. When disengaging by thinning the lines, selected men from each dismount team (often one man from each fighting position) disengage and maneuver to the rear. The men remaining in position provide a base of fire to cover the maneuver.

When the rearward-moving men are in position to provide a base of fire, the rest of the element maneuvers to the rear.

The dismount element leader must determine when to move the SAWs to provide the best support. He directs the Dragons to move first. You and your squad leaders normally move last. He also directs the men remaining in position to increase their rate of fire to keep the enemy from overrunning the position. Thinning the lines is used when no one dismount team can cover the dismount element's sector because of close terrain or limited visibility.

When the fighting vehicle teams and dismount teams are employed on the same position, direct the dismount teams to disengage first. They move to the rear, link up with the vehicles, remount, and move.

Whichever technique is used, the dismount element normally disengages first, covered by the fighting vehicle element. However, if the fighting vehicle element is not in a position to support the dismount element by fire, or if the dismount team is heavily engaged, the fighting vehicle element may have to disengage first and move to a position to assist the disengagement of the dismount element. Whichever method is used, there are two basic ways the fighting vehicle element can disengage.

5. Disengagement by the Fighting Vehicle Element.

If the fighting vehicle element is covered by another force, simultaneous disengagement may be used. If the fighting vehicle element must cover its own movement, it disengages by teams.

Simultaneous Disengagement. When the fighting vehicle element disengages simultaneously, it moves as one unit as quickly as possible. You use this method when the fighting vehicle element is covered by another force and speed is the most critical factor. If dismount teams are deployed, the fighting vehicle element either moves to the remount point to pick up the dismount teams, or it may have to attack the enemy by fire from a new position to allow the dismount teams to disengage ([Figure 2-18](#)).



Figure 2-18. Simultaneous Disengagement.

Disengagement by Teams. When the fighting vehicle element must cover its own disengagement, you can leave one, two, or three vehicles in position as a base of fire while the rest maneuver to the rear. The fighting vehicle teams left in position must cover the entire sector until the maneuvering vehicles reach positions they can use to provide a base of fire.

The number of vehicles left as the base of fire depends on the enemy situation and how quickly the fighting vehicle element must disengage.

The fighting vehicle teams receiving the heaviest tank and antitank guided missile fire are normally disengaged first. It is extremely critical, however, that other fighting vehicle teams, improved TOW vehicles, or tanks be able to cover the sectors of disengaging M2s.

6. Fire Support.

You request indirect fire and smoke through your FO or the company team commander to cover the platoon's move. Use high explosive ammunition against enemy troops, and smoke to screen exposed routes the platoon must cross. The M2's smoke screen generator can also be used to cover the platoon's movement. You use the smoke grenade launchers if the vehicles are having difficulty breaking contact. As stated, employment of smoke is covered in greater detail in lesson three.

If outside direct fire support is needed to allow your platoon to disengage, ask the company or company team commander for assistance. If the covering fire of other elements is not sufficient to allow your platoon to move, you may have to use a combination of mounted and dismounted fire and maneuver.

This completes lesson two. You should know how to plan a withdrawal not under enemy pressure and under enemy pressure. You should also know how a platoon disengages while under enemy pressure.

After reviewing all the material in this lesson, you should complete the practice exercise for lesson two. Answers and feedback for the questions in the practice exercise will be provided to show you where further study is required.

Lesson 2

Practice Exercise

Instructions

The following items will test your understanding of the material covered in this lesson. There is only one correct answer for each item. When you have completed the exercise, check your answers with the answer key that follows. If you answer any item incorrectly, review that part of the lesson which contains the portion involved.

Situation: You are a Bradley platoon leader. Your company team is conducting a withdrawal in order to prepare to defend another position. You are completing your planning on how you will organize and control your platoon's during the withdrawal.

1. The method your company team commander uses to withdraw depends on
 - ☐ A. the number of security forces available.
 - B. enemy pressure.
 - C. whether the withdrawal is conducted during daylight or periods of reduced visibility.
 - D. available indirect fire support.
2. Your unit is conducting a withdrawal while the enemy is not attacking and your platoon has been selected as the company's security force. One of your tasks is to
 - A. select OPs for the company.
 - B. leave a security force to cover the company's withdrawal.
 - C. strive to conceal the withdrawal and deceive the enemy.
 - D. reposition your platoon to cover the most likely avenue of approach into the company's position.
3. Because the actions your platoon must take during a withdrawal under enemy pressure depend a lot on the enemy's actions, you should
 - A. prepare a contingency plan for withdrawal each time your platoon moves into a defensive position.
 - B. increase the number of OPs in order to gain more information on the enemy's intentions.
 - C. request permission for early withdrawal from your company team commander.
 - D. be prepared to move back by stealth.

4. You are planning a disengagement. When you employ the fighting vehicle elements and dismount elements on separate positions, you must
- A. plan to disengage by thinning the lines.
 - B. request outside direct fire support to allow your platoon to disengage.
 - C. select a platoon remount point and routes to the remount point.
 - D. plan to disengage the fighting vehicle element first.
5. The company team commander directed you to disengage as rapidly as possible. Your dismount and fighting vehicle elements are separated, but are being adequately covered by another force. You disengage
- A. simultaneously.
 - B. by dismount teams.
 - C. by thinning the lines.
 - D. by fighting vehicle teams.

LESSON 3

OTHER ROLES FOR THE M2 BRADLEY WHILE IN THE DEFENSE

Soldier's Manual Tasks	071-326-5913	Employ an M2 BFV Platoon in the Aerial Role.
	071-450-0037	Supervise Employment of Smoke.
	071-326-5804	Conduct a Point Antiarmor Ambush by an M2 Bradley squad.

OVERVIEW

TASK DESCRIPTION: Other Roles for the M2 Bradley while in the Defense.

TASKS: Identify how to employ an M2 BFV Platoon in the Aerial Role, supervise employment of smoke, and conduct a point antiarmor ambush by an M2 Bradley squad.

CONDITIONS: You will be given the subcourse material for this lesson, and a combat (training) scenario. You will complete the practice exercise at the end of this lesson.

STANDARDS: The student will demonstrate his comprehension and knowledge by identifying how to employ an M2 BFV Platoon in the Aerial Role, supervise employment of smoke, and conduct a point antiarmor ambush by an M2 Bradley squad.

REFERENCES: The material in this lesson was derived from the following publications.

[FM 7-7J](#)
STP 7-11M34-SM

PART A - EMPLOY AN M2 BFV PLATOON IN THE AERIAL ROLE

1. General.

Your M2 Bradley platoon will operate in a tactical environment in which the enemy has both fixed-wing and rotary-wing aircraft in the close air support role. Therefore, you must establish air surveillance for hostile aircraft as well as ground targets. You must insure members of your platoon are

aware of aircraft engagement rules, and direct evasive actions when engaged by attacking aircraft. You will also be required to direct the platoon fires to destroy or suppress aerial targets, including airborne and airmobile infantry.

2. Early Warning System.

To effectively defend against an air attack, you make maximum use of cover, concealment, camouflage, dispersion, and early warning. The best measure to avoid an air attack is concealment. Enemy aircraft can attack any ground force whose location has been discovered. The sighting of a few soldiers or vehicles can lead to the disclosure of a whole unit, even if the rest of the unit is well hidden. Units must also be proficient in the use of their weapons in air defense.

You establish an early warning system to preclude a surprise attack. All track commanders (BC) and OPs should have air watch instructions included in their duties, and alertness for enemy aircraft should be required as part of normal observation. OPs will not always have a good view of the air around them, in which case, a special airguard should be detailed.

3. Air Watch Instruction and Duties.

All BCs and dismounted soldiers should be alert for:

- Sun reflection from aircraft canopies and cockpit windows.
- Flash from rotating helicopter blades.
- Smoke or vapor trails from jet aircraft, missiles, and rockets.
- Dust and excessive movement of tree tops and bushes in a particular area caused by the downdraft of helicopter blades.
- Noise from helicopters, and from jets breaking the sound barrier.

4. Threat Jet Aircraft Tactics.

To successfully defend against attacking jet aircraft, it is essential to be familiar with enemy tactics and not be surprised by the trailing jet team. A common enemy tactic is to have one team of two jet aircraft attack a target, followed by a second team 1 to 3 miles behind ([Figure 3-1](#)). The teams try to surprise the target and divert attention and defensive fire. When the lead team spots a target, it notifies the trailing team and then pops up in full view of the target.

This attracts fire to the lead team while the trailing team, which has not yet been seen, comes in for a high-speed, low-altitude attack. The attack is usually level, under 1,000 feet, with cluster bomb units released along the long axis of the target. The lead team then makes a sharp, reverse turn to attack the target close in, firing cannon and rockets or dive-bombing for maximum effect. This tactic has a double effect:

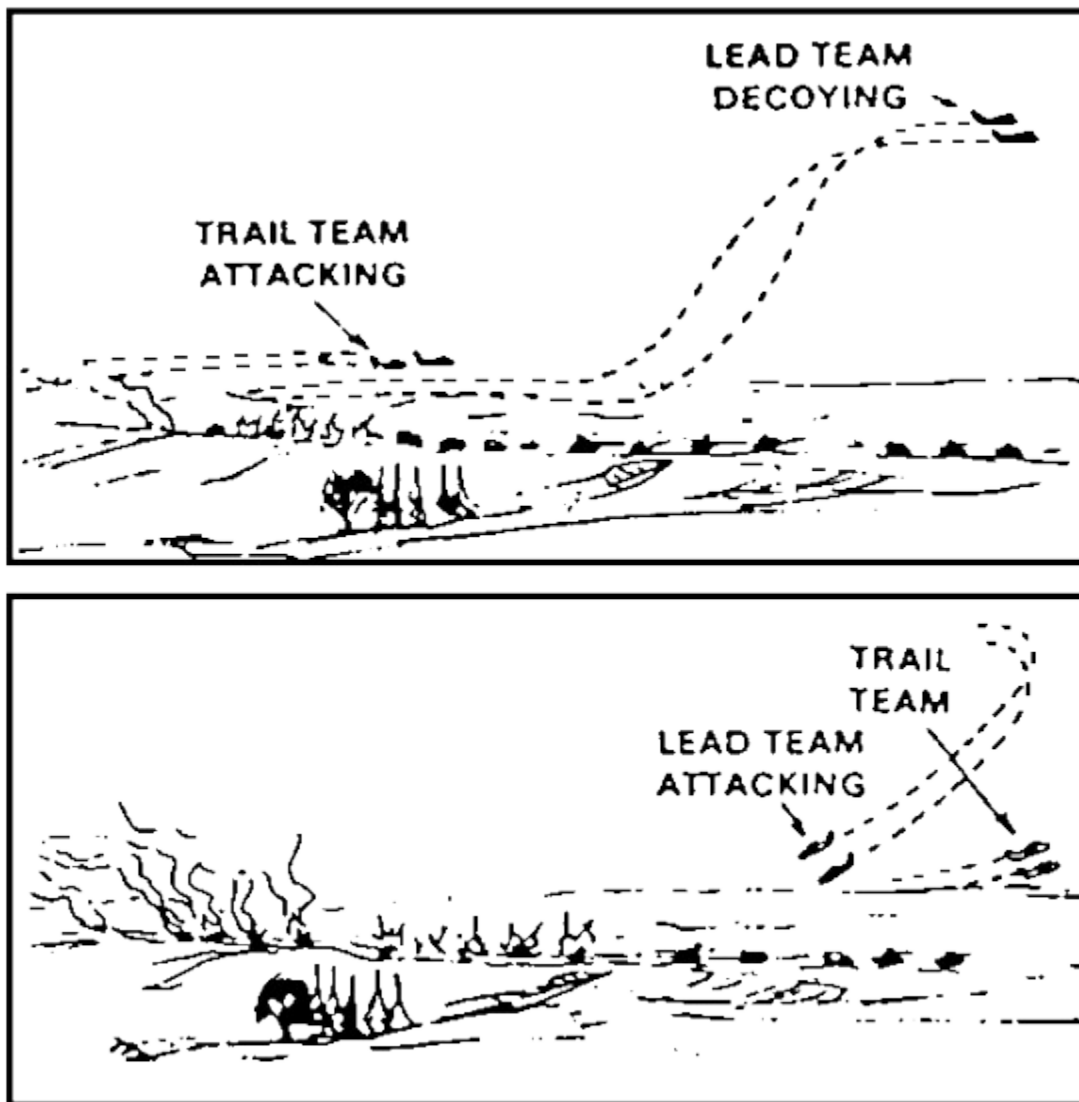


Figure 3-1. Air Attack.

- If the target is surprised by the enemy's lead team and does not take evasive action, the trail team will obtain maximum results with the cluster bomb units.
- If the target only evades the first attack and does not concentrate fire on the lead team, the lead team will get maximum results with rockets and bombs on its return pass.

Attack helicopters also fight in teams of two or more. They are more agile and maneuverable than jet aircraft and use ground cover and concealment to hide, while engaging from stand-off positions.

5. Bradley Weapons' Capabilities and Limitations.

The 25-mm gun and the 7.62-mm coaxial machine gun can elevate to +59 degrees. The 25-mm gun has three rates of fire: single shot, 100 rounds per minute, and 200 rounds per minute. For air defense, the 200-rounds-per-minute rate should be used by firing HEI-T in 25-round bursts (unless the target is a

Hind, a Threat helicopter). This allows a rapid rate of fire without using too much ammunition. If the target is a Hind, APDS should be used.

The 7.62-mm coaxial machine gun has a cyclic rate of fire of 650 to 950 rounds per minute. The maximum effective range is 900 meters. Because of jet aircraft's high speed while flying a crossing course, the 7.62-mm coaxial machine gun should be used to engage them instead of using the 25-mm gun. Helicopters, when they are in range and flying a crossing course at high speed, should also be engaged using the 7.62-mm coaxial machine gun. The ready load for the coaxial machine gun is 800 rounds with 1,540 additional rounds stowed. The advantage in using the coaxial machine gun is its greater cyclic rate of fire, larger stowed load, and its faster reload than the 25-mm gun.

6. Techniques of Engagement.

Specific rules for engaging aircraft should be covered in the unit SOP. These are based on policies of higher headquarters. Insure all personnel in your platoon are aware of them. In the absence of such guidance:

- Immediately engage all attacking aircraft.
- Immediately engage all helicopters positively identified as hostile.
- Engage when friendly air defense units are observed engaging enemy aircraft.
- Engage hostile jet aircraft not attacking the friendly position only after ordered to fire.

Likely areas where enemy helicopters may be hiding--behind hills and treelines--should be suppressed by fire just as ground target areas are suppressed. You can do this by indirect fire of mortars, artillery, and the M2's 25-mm automatic gun and 7.62-mm coaxial machine gun.

M2s must take evasive action when engaging or being engaged by hostile aircraft. This reduces the effectiveness of the hostile aircraft's fire. Direct your platoon to:

- Seek cover and concealment.
- Keep dispersion between vehicles.
- Move with frequent changes of speed and direction while turning away from the hostile aircraft's axis of attack.
- Avoid use of light at night.

Your best defense against attacking enemy aircraft is to:

- Immediately concentrate volume fire on any attacking aircraft.
- Take evasive action and disperse.
- Create a smokescreen between the M2s and attacking helicopters to counter the helicopters' weapons, particularly antitank guided missiles.

You concentrate volume fire by two methods:

- Directing all platoon fires ahead of the aircraft, letting it fly through the cone of fire ([Figure 3-2](#)). When the aircraft is flying a crossing course, the platoon uses a lead of 200 meters--two football fields--against fast-moving aircraft, and a lead of 50 meters (half a football field) against helicopters. If the aircraft, either jet or helicopter, is flying directly forward, the platoon fires should be directed slightly above the nose ([Figure 3-3](#)). BCs should not try to track or traverse with a high-speed aircraft; it flies too fast.

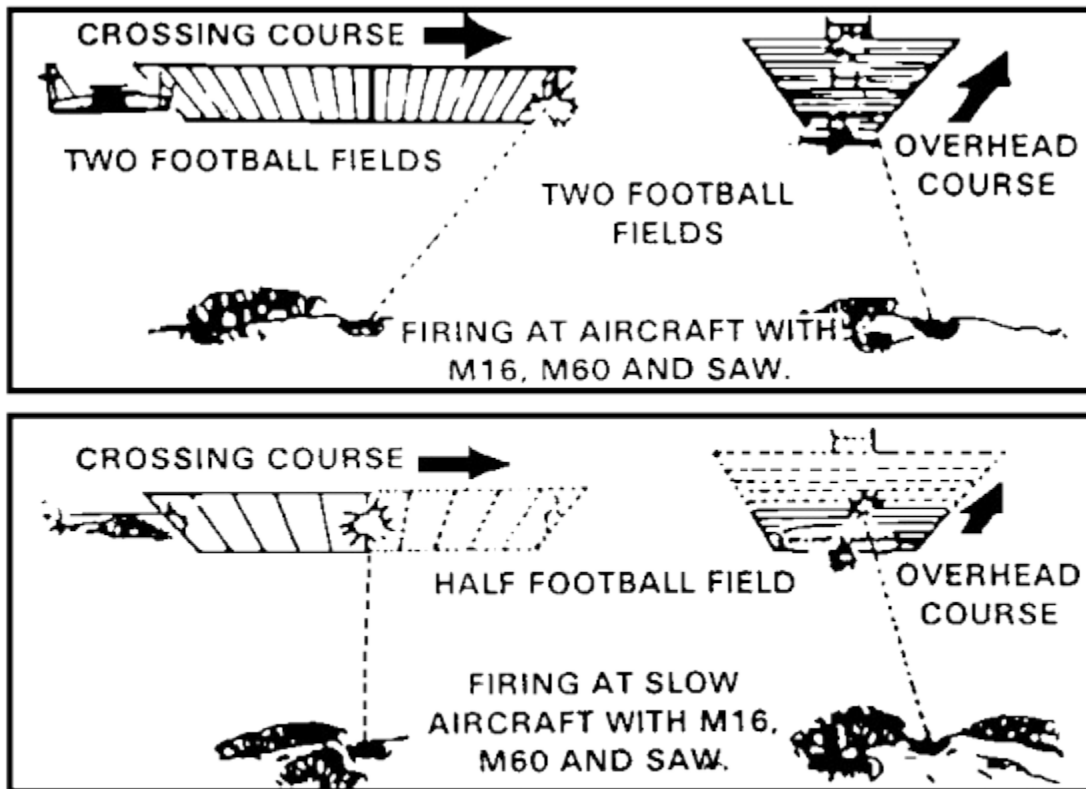


Figure 3-2. Engaging Aircraft.

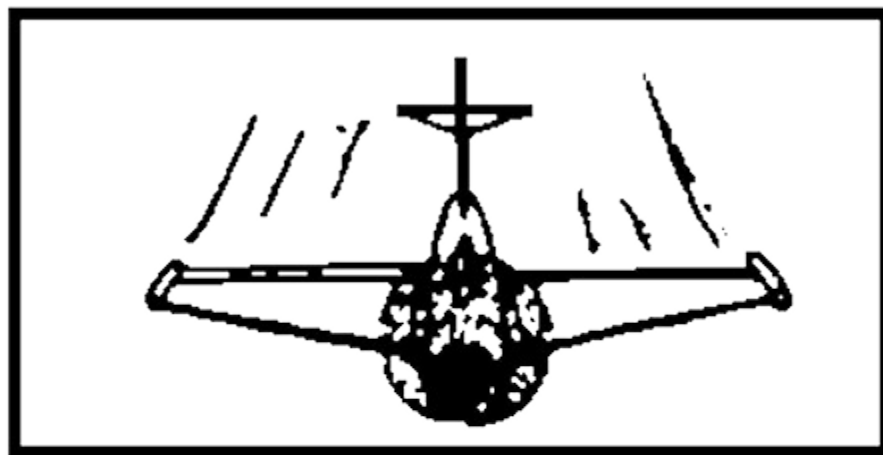


Figure 3-3. Head - On Target.

- A second technique to engage high-speed aircraft is to designate a reference point or a series of reference points. Alert your platoon to get ready and, as the aircraft approaches a reference point, order, "ENEMY AIR, REFERENCE POINT 2--FIRE." All M2s and all dismounted soldiers raise their weapons to a 45-degree angle over the reference point and fire ([Figure 3-4](#)).

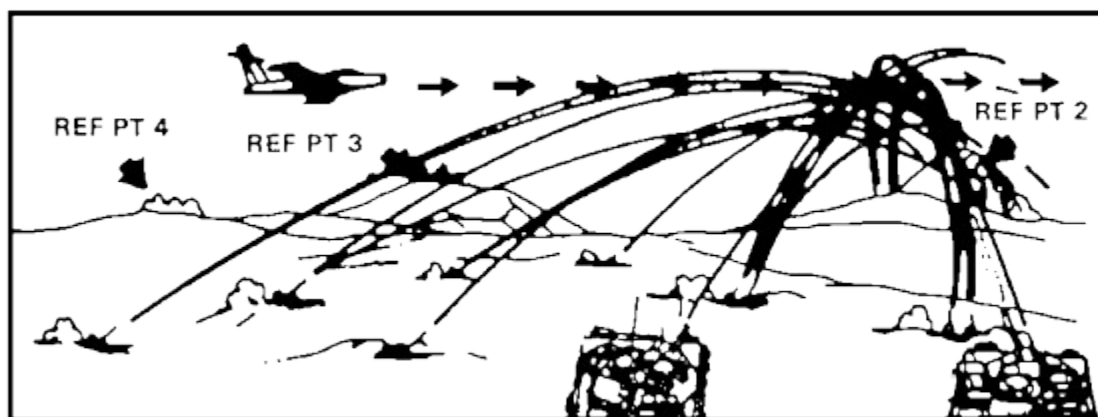


Figure 3-4. All-Weapons Fire.

- If a hovering helicopter is detected, you direct the M2s or engage it with the 25-mm automatic gun, using high explosive incendiary tracer. If troops are rappelling when sighted, fires remain directed at the helicopter, not the troops, because it is a better target.

When airborne troops are detected, a lead must be applied to compensate for the airborne soldier's rate of descent. A lead of two heights (forms) below the soldier should be used when employing the 7.62-mm M240C machine gun or the SAW. As with the other engagements, all available fires of the platoon are used.

Pilots who have bailed out of disabled aircraft should not be considered as airborne troops. Engaging parachuting pilots violates the covenants of the Geneva Convention.

7. Summary.

This completes the discussions on employing the M2 in an aerial defense role. We discussed the importance of cover and concealment, having an early warning system, threat air tactics, M2 weapons' capabilities, and techniques of engagement. We will now move to a discussion on how to employ smoke by an M2 platoon.

PART B - SUPERVISE EMPLOYMENT OF SMOKE

1. General.

Smoke obscures vision and degrades most sighting devices. Both friendly and enemy forces use smoke to reduce their opponent's ability to see, move, and fight. Both forces may use smoke to screen their own movement, and they may place smoke to deceive. Thermal-imagery sights and viewers provide the means to see and shoot through most smoke.

2. Smoke Devices.

The BFV has two types of onboard smoke devices, and a thermal-imagery sight to see through smoke. The smoke devices are the M257 smoke-grenade launcher and the smoke-screen generator.

Smoke-Grenade Launcher. The M257 smoke-grenade launcher is used to spread a smoke screen quickly. There are two four-tubed launchers, one on each side of the turret. Eight smoke grenades are simultaneously launched electrically by the BC or gunner from the turret ([Figure 3-5](#)).

Four more smoke grenades are stowed in the ammunition box above each grenade launcher. The total number of rounds carried on the vehicle is 16. This system must be reloaded by hand from outside the vehicle.

The grenades are filled with red phosphorus. Upon activation, a dense cloud of white smoke is created from ground level up to a minimum height of 7 meters, by 70 meters wide, and between 20 and 50 meters from the vehicle. All this action takes 2 to 6 seconds. The cloud lasts from 1 to 3 minutes, depending on wind speed and other weather conditions ([Figure 3-5](#)).

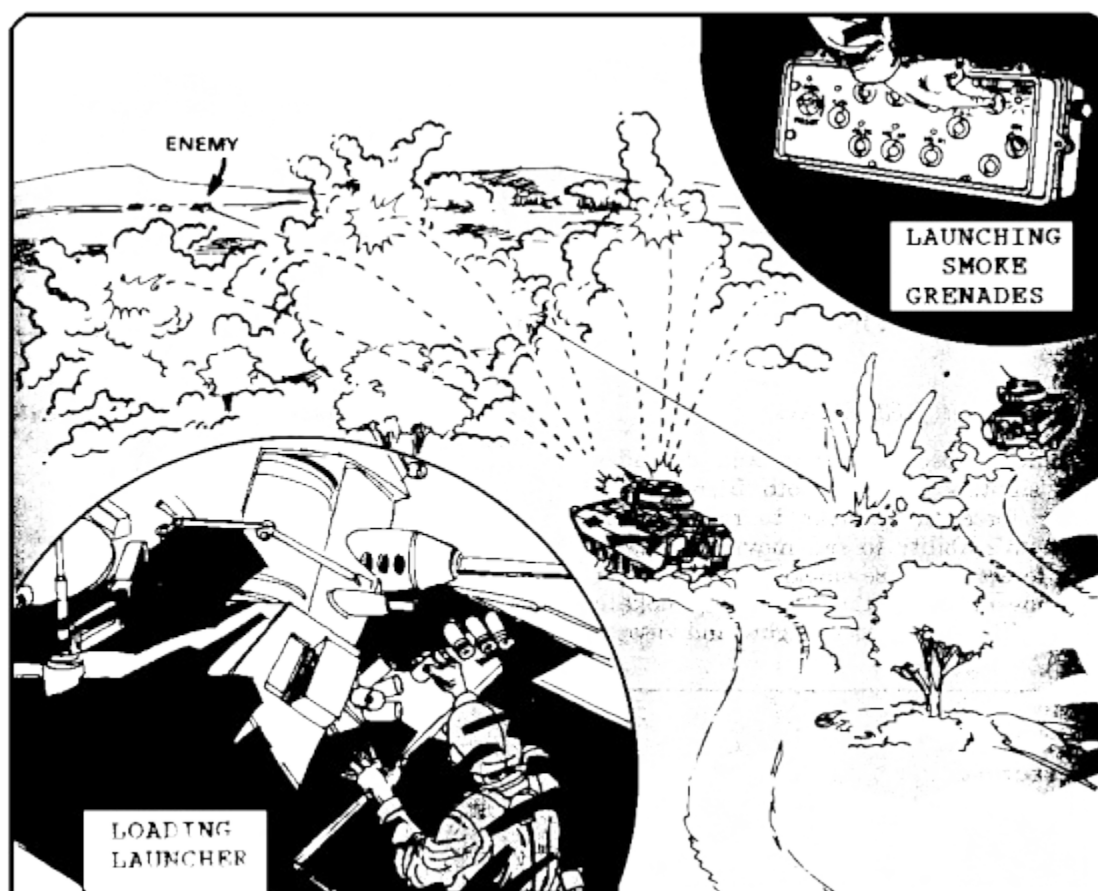


Figure 3-5. Smoke - Grenade Launcher.

Smoke-Screen Generator. The BFV smoke-screen generator uses the engine exhaust system to furnish a continuous stream of smoke. Smoke is created by injecting raw diesel fuel into the engine's exhaust manifold. This emits a large amount of smoke from the right front side of the vehicle for as long as wanted ([Figure 3-6](#)).

Smoke is a major factor on the battlefield. Measures should be identified and techniques practiced that allow your platoon and squads to use smoke, both enemy and friendly, to their advantage.

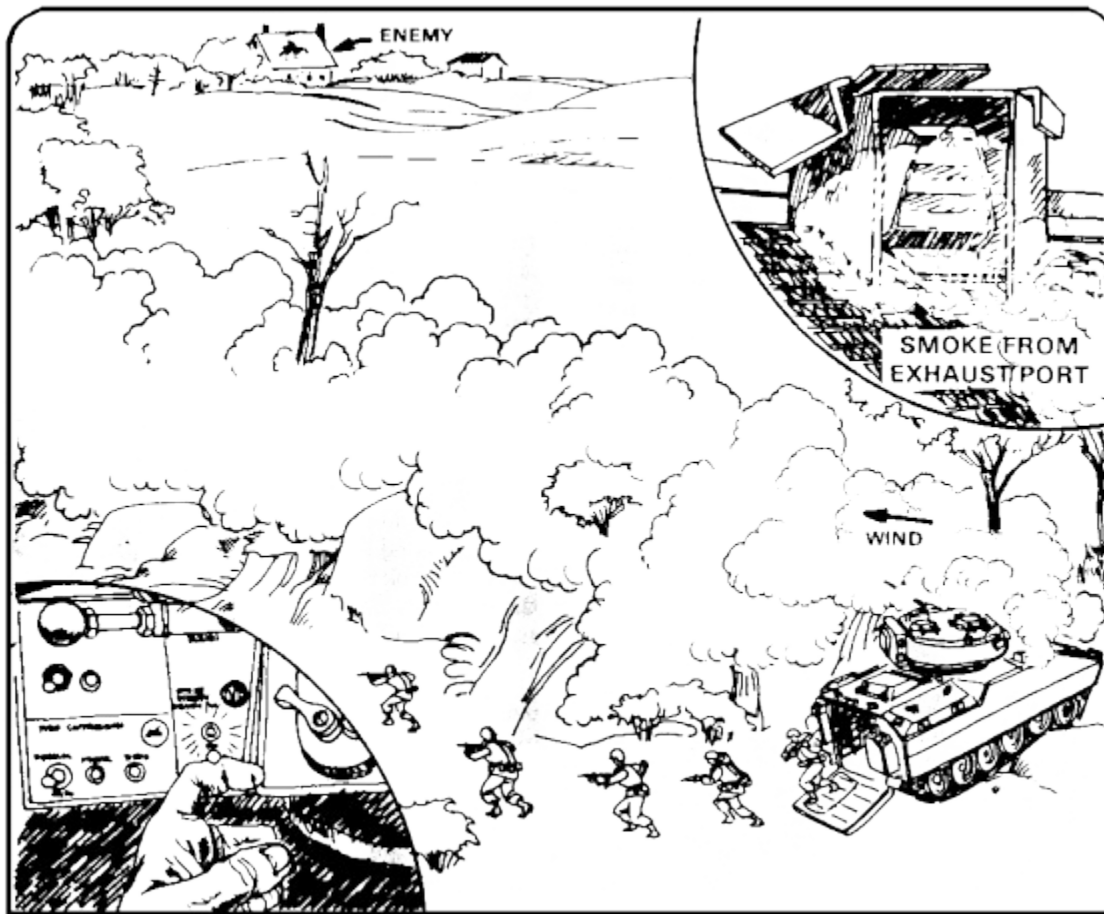


Figure 3-6. Smoke - Screen Generator.

3. Tactical Considerations in a Smoke Environment.

Your platoon can use smoke to screen movement between positions; occupation of, withdrawal from, or reoccupation of the positions; or in a counterattack. This smoke is supplied by the vehicle using the smoke-screen generator. The smoke can also cover displacement between delay positions. It can deceive the enemy as to the location and number of vehicles employed on each position, and it can slow the enemy enough to let the platoon occupy new positions.

Because there are only 16 smoke grenades per vehicle, the use of the grenade launcher must be controlled. The limited number of smoke grenades make it necessary for you to take advantage of all other smoke sources and conserve smoke grenades for self-defense. During movement, you might direct a certain squad to launch its smoke grenades to counter antiarmor fires.

The 70-meter-wide smoke screen may not screen the entire platoon from the enemy gunners. If not, you could then direct another squad to launch its smoke grenades. All vehicles must take evasive action to get full advantage from the smoke screen.

If a smoke screen is needed to cover the crossing of an open area, the smoke-grenade launcher can be used to set up the smoke screen, followed by smoke from the smoke-screen generator.

4. Smoke Countermeasures.

Smoke reduces the attacker's and the defender's ability to acquire targets, navigate, and control their forces. The use of smoke must be carefully planned to insure that the intended advantage is gained.

Detailed plans must be made and everyone must know what actions are to be taken in a smoke environment. A detailed reconnaissance of the area must be carried out using all available resources (radars, aerial photographs, maps, etc.). In the defense and as time permits, routes to subsequent positions should be reconnoitered in depth.

During movement, terrain features, wood-lines, riverbeds, and man-made features can be used to guide on. Before smoke is employed, or if the BFVs vision of the target or reference point is obscured, the gunner should lay the 25-mm gun on the target or reference point and turn on the stabilization system. The turret will remain oriented in the general direction of the target or reference point. It will not point exactly at the target or reference point. The gunner must maintain constant pressure on the gunner's control palm grips without turning the turret while the stabilization is engaged.

You must plan the use of the thermal-imagery sight to see through smoke. The 10-minute cooldown period needed before the thermal sight can be used requires that it be turned on well before the platoon moves through its own or the enemy's smoke.

The smoke is controlled by the driver using the smoke-screen generator switch on his control panel. A platoon of BFVs can produce enough smoke with these smoke-screen generators to screen the company, depending on speed of movement, wind speed, and direction, and other weather conditions.

Smoke used to conceal movement is more effective when precautions and evasive actions are also used. Whenever possible, smoke should be produced from a covered or concealed position. A woodline or defilade position may be used to conceal the vehicles generating the smoke screen to cover an open area which must be crossed. Evasive action - that is, a zigzag pattern - should be used when creating a smoke screen while moving to take advantage of the concealment resulting from the smoke screen.

5. Summary.

This completes the discussions on employment of smoke by an M2 Bradley platoon. We covered the onboard smoke devices; the smoke-grenade launcher, and the smoke-screen generator and the tactical considerations for operating in a smoke environment, including smoke countermeasures. We will now cover the conduct of a point antiarmor ambush by an M2 BFV squad.

PART C - CONDUCT A POINT ANTIARMOR AMBUSH BY AN M2 BFV SQUAD

1. General.

The purpose of an antiarmor ambush is to destroy armored vehicles. A squad can conduct a dismounted antiarmor ambush, but the limited number of dismount troops in the squad may have to be augmented. In this part of the subcourse you have given one of your squad leaders the mission to conduct an antiarmor ambush. You have also given him the location for the ambush. After you finished issuing your instructions, the squad leader begins by organizing his squad.

You, as the squad leader must organize the antiarmor ambush so that the squad can destroy enemy armor vehicles and provide fire support and security. When you organize an antiarmor ambush, you must:

- Understand the mission and situation.
- Determine the personnel available for the mission.
- Assign the personnel to the required elements.
- Brief each team on its duties.
- Determine the most effective role of the M2 (vehicle element).

Your antiarmor ambush plan must provide for:

- Destruction of enemy armor.
- Fire support during the ambush and withdrawal.
- Security for the ambush.

With these considerations, you organize the teams necessary to accomplish the mission and assign men to those teams based upon the terrain, enemy, time, and men available.

2. Organization.

When the M2 squad performs the mission of conducting an antiarmor ambush, you organize the squad into two teams, the armor killer team and support/security team.

- Armor Killer Team. This team has the mission to destroy armored vehicles. The M2 is normally the primary weapon system of this team. The TOW missile is the primary heavy-armor-defeating weapon due to its tank-defeating capability. The 25-mm automatic gun and 7.62-mm coaxial machine gun provide greater supplemental firepower.

LAWS, Dragons, and SAWs, may be used to supplement the fires of the M2. Whenever possible, you position yourself with this team to control the antiarmor fires. To be useful, however, the M2 must have concealed routes into and out of the ambush site. The vehicle should be placed in a concealed, hull-down position. All precautions must be taken to protect the M2 because it is the primary means of escape.

If the M2 is used as the killer team element, it is organized as shown in [Figure 3-7](#).

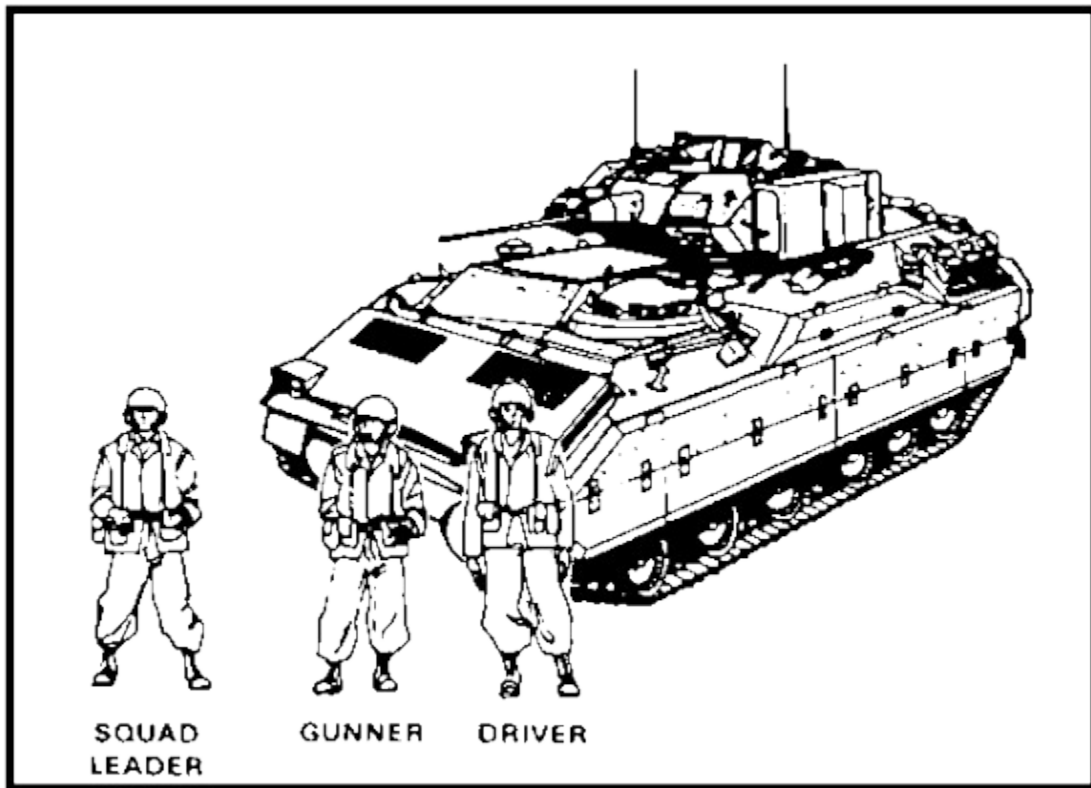


Figure 3-7. M2 Killer Team Element.

Where the terrain does not lend itself to the use of the M2, the Dragon is the primary weapon of this team. LAWs, and SAWs may be used to supplement the fire of Dragons. Where fields of fire are very short (less than 100 meters), LAWs may be the primary antiarmor weapon. When LAWs are the primary antiarmor weapon, your armor-killer team must be larger so it can mass LAW fire into the kill zone to insure destruction of enemy armored vehicles.

If the dismount team is used in very close terrain, the M2 is used to cover the dismount team's withdrawal. You place it where it can best support by fire with its 25mm automatic gun and coaxial machine gun.

When the vehicle is not used with the killer team, your killer team may be organized as shown in [Figure 3-8](#).

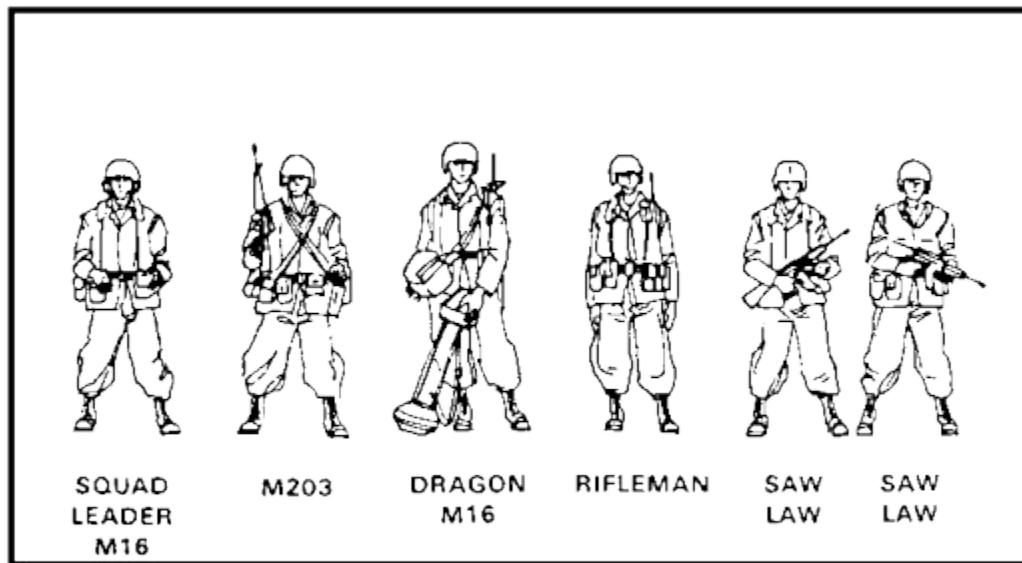


Figure 3-8. Dismount Team as Killer Element.

- Support/Security Team. This team provides early warning and security for the ambush. It may also be positioned to cover the withdrawal of the armor-killer team. The team is armed with LAWs to keep enemy vehicles from outflanking them. The team must have a means of communication to provide early warning.

When the M2 is used with the killer team, your support/security team may be organized as shown in [Figure 3-9](#).

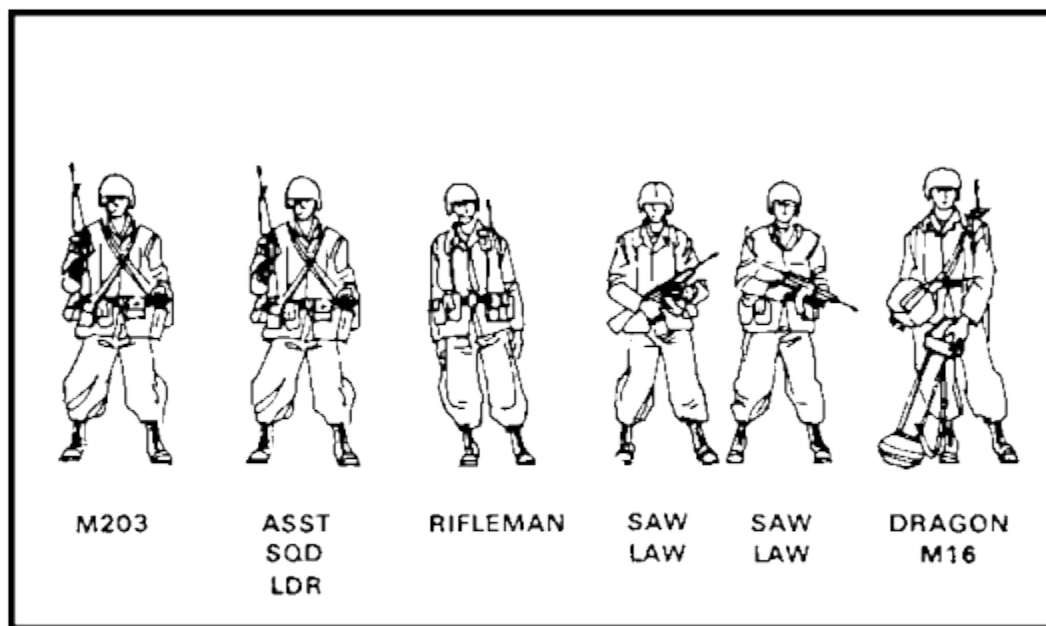


Figure 3-9. Dismount Team as Security Team.

When the dismount team is used as the killer team, the vehicle team is used as the support team and is organized as shown in [Figure 3-10](#). It should be noted that one of these men should dismount to provide local security.

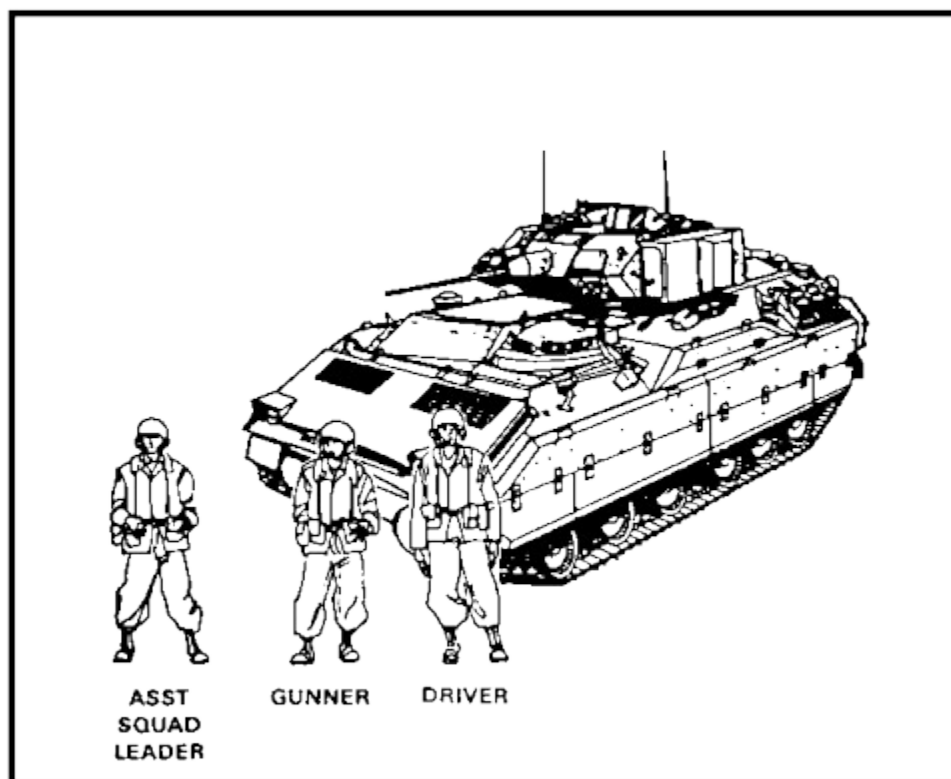


Figure 3-10. Fighting Vehicle Team as Support Team.

Your platoon leader will normally give you the location of the ambush site in a fragmentary order. When possible, you should try to reconnoiter the site, on the ground or by air. As a minimum, conduct a thorough map reconnaissance. If a ground reconnaissance was not conducted, you organize for both possibilities—that is, the use of either the vehicle team or the dismount team as the killer team.

You plan for support by coordinating with your platoon leader to have planned fires in the kill zone and along the route of withdrawal. These may be mortar and/or artillery and should include smoke or white phosphorous rounds to hamper enemy fires.

You plan to use mines to create an obstacle between the kill zone and the firing positions if a natural obstacle does not exist. Mines can also be used in the kill zone itself or with the security/support team to enhance the security of a flank. Plan to use both antiarmor and antipersonnel mines. Also, plan manmade obstacles, such as abatis, when possible.

3. Summary.

This completes the discussions on organizing an antiarmor ambush, we now move to the conduct of an ambush.

4. Conducting An Antiarmor Ambush.

The Bradley squad leader, you, as the platoon leader, tasked to conduct the antiarmor ambush, has completed his planning and organized his squad into two teams. You remind him that his mission is to destroy or disable armor vehicles without being discovered before hand.

You also remind him that the conduct of the antiarmor ambush must be well planned and thought out. The situation and mission may not always allow him to observe all of the following steps and guidelines, but he must try to:

- Reconnoiter the site, on the ground or by air when possible. As a minimum, he should conduct a thorough map reconnaissance.
- Conduct rehearsals, time permitting. These can include what to do if engaged by the enemy before arrival at the site, what to do if the site is attacked by enemy infantry, how to approach the site, and how to leave the site. Insure that each member of each element understands what he is to do. If only able to conduct a map reconnaissance, he should plan and rehearse the contingency missions.

5. Ambush Site.

The successful ambush will depend upon, among other things, how quickly your squad arrives at the site, executes the ambush, and departs. At any time, the M2 may be lost to hostile action or mechanical failure. You must be prepared to use another means of transportation for withdrawal, whether it be by foot, another vehicle, or helicopter.

Upon arriving at the site, you post security and reconnoiter the exact location of the ambush. A good ambush site should be where:

- Enemy vehicles are likely to enter. Do not plan kill zones in places where the enemy may not cross.
- The terrain makes it difficult for other armor vehicles to bypass a destroyed vehicle and assault the ambush squad.
- The kill zone permits the M2 or Dragon gunner to hit the flank of a target vehicle.
- A natural obstacle is between the kill zone and the ambush squad ([Figure 3-11](#)). If there are no natural obstacles (and time permits), your squad can make artificial obstacles, such as minefields.
- The kill zone is large enough to permit the M2 or Dragon gunner to acquire, fire, track, and hit a target vehicle ([Figure 3-12](#)). Generally, if the gunner looks through his sights at the kill zone and there are no obstructions in the field of view, the kill zone is large enough. When using the TOW, the half-sight method is used to determine if the kill zone is large enough. If the Dragon is to be used to supplement the TOW (M2), use the full-sight method for the Dragon to determine the adequacy of the kill zone.



Figure 3-11. Obstacle Between Kill Zone and Ambush Squad.

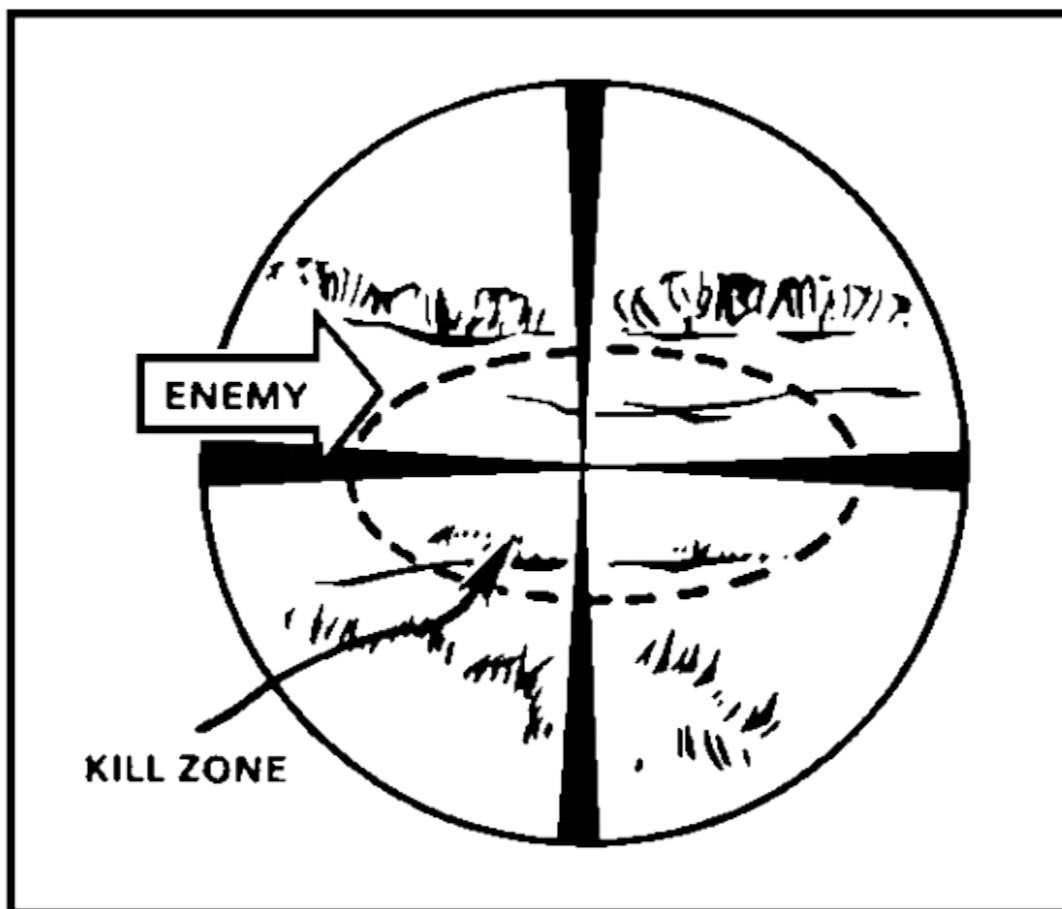


Figure 3-12. Adequate Kill Zone.

- A target vehicle is isolated and has no other enemy armor overwatching it ([Figure 3-13](#)).

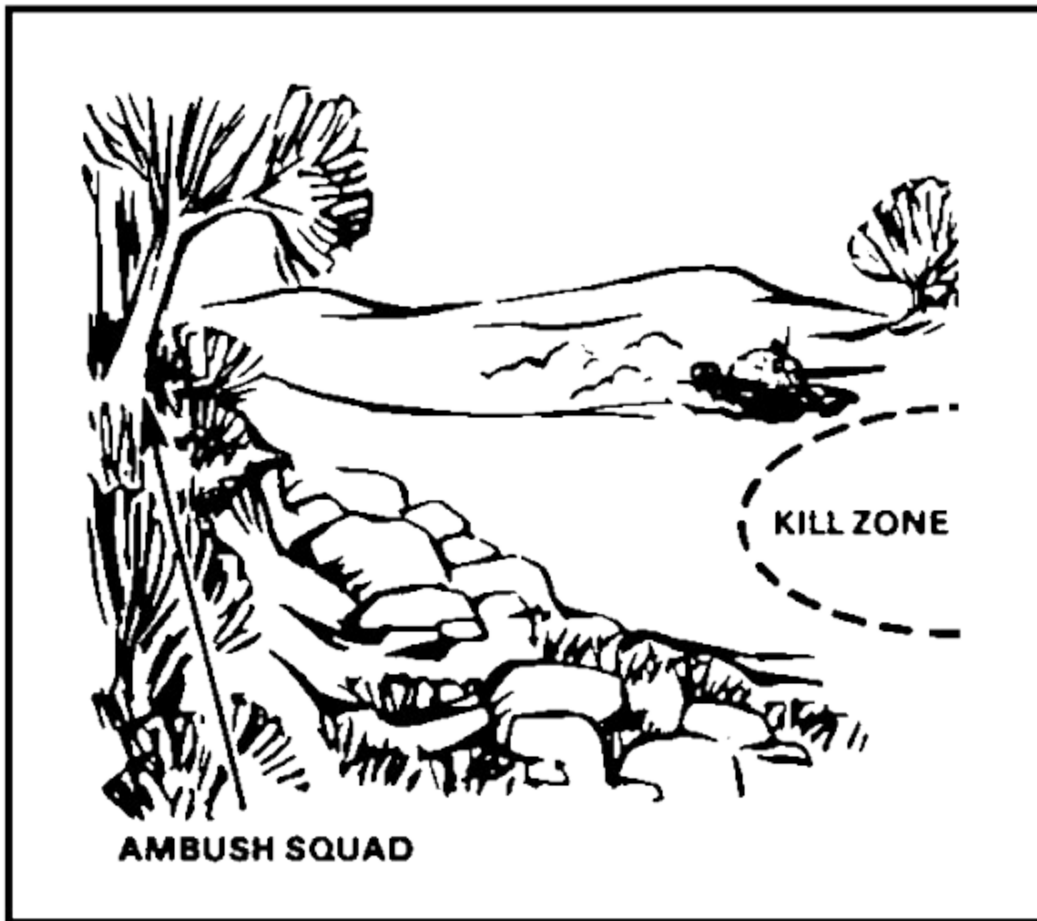


Figure 3-13. Isolated Target Vehicle.

- If the M2 is used in the armor-killer team, an M2 hull-down or hide position must be available.

6. Security at Ambush Site.

The support/security team moves into position to establish security. These elements may have to be repositioned after the armor-killer team sets up. Once the ambush site is secure, you position the armor-killer team. Since the primary weapons system available to the antiarmor ambush is the M2, you should always try to locate the kill zone at the maximum effective range (3,750 meters) from the ambush site.

7. Kill Zone.

You and the gunner choose the best firing position and move to it. When the vehicle is in position, the gunner ensures that all weapon systems are loaded and ready to fire, to include conducting the TOW self-test. He also ensures the cargo hatch is closed completely.

When a long-range ambush (1,000 to 3,750 meters) is established, the role of the dismount team is to provide security. In positioning the support/security team, consider the distance between fighting

vehicle and dismount team. Position them far enough out to provide security, yet close enough to allow for a quick remount and to provide adequate protection from enemy indirect fire.

If the dismount team is used as the armor-killer team, then the Dragon becomes the primary weapon system. You should locate the kill zone at the maximum effective range (1,000 meters) from the ambush site. When a medium ambush is established (200 to 1,000 meters), you position the antiarmor weapon (Dragon) and then the SAW to cover the kill zone. The remainder of the dismount team provides security for these two weapons.

If electing to conduct a close-in ambush (within 200 meters), you plan for the use of all available LAWS. You position the individual members of the squad, insuring that each position has:

- Good fields of fire into the kill zone.
- Cover and concealment.
- An obstacle between it and the kill zone.
- Covered and concealed withdrawal routes for the squad.

Once in position, you designate positions within the kill zone to be covered by the various weapon systems. You plot indirect fires on the kill zone or your own position, and along the route of withdrawal.

In establishing the ambush, you must provide a position for the M2, whether it be in the armor-killer team or support/security team.

8. Terrain around Ambush Site:

You must improve the ambush position as time permits. Also prepare and improve the M2 position and individual positions.

Place Claymore mines, explosives, or smoke pots on fake firing positions and rig for remote firing. They will deceive the enemy as to the location and size of the ambush force and confuse him.

If you are sure that the enemy cannot see the impact, you can call for check rounds from whatever indirect fire unit(s) is in support. In most cases, a FO will not be with you, so you must call for fire through the FO attached to the platoon.

You rehearse so that each man knows his job before, during, and after the ambush.

9. Execute the Ambush.

Long-range ambushes are executed by firing the TOW. Once the round impacts, cover the withdrawal with smoke. To increase the speed of withdrawal, dismount only those men needed to ensure local security of the BFV.

You execute medium-range ambushes by firing either the TOW (if the M2 is used as the killer team) or the Dragon (if the dismount team is used as the killer team.) Once the round impacts, team members whose weapons have the range to reach the kill zone fire their weapons to cover the withdrawal of the antiarmor specialist. Other members of the dismount team who are providing security shoot if they see

enemy within their sector. As soon as the antiarmor specialist has moved to where he cannot be fired at by the enemy, the remainder of the dismount team moves to the remount point and links up with the M2.

You conduct a close-in ambush when fields of fire are short (200 meters or less). Plan for the use of all LAWs by the dismount team. If the vehicle is to be used, the 25mm automatic gun using APDS ammunition should be its selected weapon. In a close-in ambush, you must mass a high volume of antiarmor weapons to insure destruction of the enemy vehicle.

You position yourself with the armor-killer team in order to initiate the ambush.

Have indirect fires impact on the kill zone as the ambush is executed.

If enemy dismounted infantry precede armored vehicles into the kill zone you must decide if they pose a threat to the ambush. If they can outflank the ambush site before the enemy armor can be hit, you may decide to withdraw without making contact and try to set up another ambush along the avenues of approach somewhere else. If the enemy infantry is an immediate threat to the squad or appears to be ready to find or trip any mechanical devices, you initiate the ambush with automatic weapons. The M2 engages the enemy with the 7.62-mm coaxial machine gun. All actions are executed exactly as planned, to include smoke and indirect fire, except that the armor-defeating weapons are not fired. When mounted enemy infantry approaches the kill zone of the armor ambush, the carriers are treated like light tanks. They are allowed to close, then they are destroyed one at a time.

Because of the speed with which other enemy armored vehicles may react to the ambush, and the responsiveness of enemy artillery, you spring the ambush, break contact, and get out of the area as rapidly as possible. The support/security team's role varies with the type of ambush. For example:

- In the long-range ambush, the support/security team provides local security because its weapon cannot affect action in the kill zone. Determine how much security and how far out it needs to be placed. Balance this against a quick withdrawal. The larger the force and the greater the distance from the vehicle, the slower the withdrawal.
- When a medium-range ambush is conducted, most of the dismount team provides security, since most of their weapons will be unable to influence the action in the kill zone. You may elect to position the machine gun to engage dismounted infantry preceding the enemy armor.
- When a close-in ambush is conducted, the support/security team provides both security and support. It must provide flank security and also supporting fires into the kill zone to mass fires. It must also engage any secondary vehicles that enter the kill zone. It provides suppressive fires to withdraw the killer team.

Your squad withdraws under the cover of indirect fire and smoke. If the M2 can be detected in a long-range ambush, it should fire its smoke grenades. In a medium-range and close-in ambush, the chances of detection are greater, and it normally would fire its smoke grenades. The squad withdraws along predesignated routes to the remount point. Once linkup has been accomplished, the squad withdraws along a previously reconnoitered route.

If possible, you must maintain communication with your platoon leader at all times.

This completes lesson three. You should know how to employ the Bradley in an aerial role, how to employ smoke and how to organize and conduct a point antiarmor ambush by and M2 BFV squad. After reviewing all the material in this lesson, you should complete the practice exercise for lesson three. Answers and feedback for the question in the practice exercise will be provided to show you where further study is required.

Lesson 3

Practice Exercise

Instructions The following items will test your understanding of the material covered in this lesson. There is only one correct answer for each item. When you have completed the exercise, check your answers with the answer key that follows. If you answer any item incorrectly, review that part of the lesson which contains the portion involved.

Situation: You are a platoon leader. Your platoon is on the defense. The company OPORD indicated that a reinforced motorized rifle battalion is expected to attack the company's positions. The attack will be supported by jet aircraft and helicopters.

1. To effectively locate and engage enemy jet aircraft, your gunners and OPs must understand threat tactics. The men should be aware that threat jet aircraft
 - ☐ A. trail team drop bombs on the first pass on the target, and the lead team fire rockets on the second run.
 - ☐ B. deliver bombs accurately from high altitudes.
 - ☐ C. attack armored and mechanized units from the flank.
 - ☐ D. use ground cover and concealment while attacking.
2. You are planning for the use of smoke to screen movement between positions. You
 - ☐ A. should mark all routes.
 - ☐ B. must plan on using guides.
 - ☐ C. must reconnoiter all routes in depth.
 - ☐ D. relocate before employing smoke.
3. The attacking enemy battalion is being supported by T-64 tanks and you, the platoon leader, have been tasked to organize and conduct an antiarmor ambush with an Bradley squad. You are preparing to designate the squad that will conduct the ambush, you may also have to
 - ☐ A. brief each team on its duty.
 - ☐ B. assign personnel to the armor-killer team, and the support/security team.
 - ☐ C. develop the obstacle plan for the ambush.
 - ☐ D. provide augmentation due to the limited number of dismount troops in the squad.

4. Your point antiarmor ambush squad is selecting the ambush site. To determine if the kill zone is large enough to use the TOW, you
 - A. use the full sight method.
 - B. select a kill zone 200 meters wide.
 - C. use the half-sight method.
 - D. select an area with natural obstacles between the kill zone and ambush site.
5. The dismount team will be the armor-killer team in a medium-range ambush. A medium-ambush is established
 - A. within 200 meters.
 - B. at the maximum effective range of the TOW.
 - C. 400 to 1,000 meters.
 - D. 200 to 1,000 meters.